CLARK UNIVERSITY

2004-2005 ACADEMIC CATALOG

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CLARK UNIVERSITY

1887

Academic Catalog 2004–2005

CHALLENGING CONVENTION, CHANGING OUR WORLD™

CLARK
1887 UNIVERSITY

Academic Catalog 2004–2005

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CLARK UNIVERSITY'S MISSION IS TO EDUCATE UNDERGRADUATE AND GRADUATE STUDENTS TO BE IMAGINATIVE, CONTRIBUTING CITIZENS OF THE WORLD, AND TO ADVANCE THE FRONTIERS OF KNOWLEDGE AND UNDERSTANDING THROUGH RIGOROUS SCHOLARSHIP AND CREATIVE EFFORT. ◆ THE UNIVERSITY SEEKS TO PREPARE STUDENTS TO MEET THE CHALLENGES OF A COMPLEX AND RAPIDLY CHANGING SOCIETY. IN STUDENTS, AS WELL AS FACULTY, CLARK FOSTERS A COMMITMENT TO EXCELLENCE IN STUDYING TRADITIONAL ACADEMIC DISCIPLINES, AS WELL AS INNOVATION IN EXPLORING QUESTIONS THAT CROSS DISCIPLINARY BOUNDARIES. THE FREE PURSUIT OF INQUIRY AND EXCHANGE OF IDEAS ARE CENTRAL TO THAT COMMITMENT. ◆ THE FOUNDATION OF CLARK'S ACADEMIC PROGRAM IS GROUNDED IN THE LIBERAL ARTS AND ENRICHED BY INTERACTIONS AMONG UNDERGRADUATE STUDENTS, GRADUATE STUDENTS AND FACULTY. THE INTELLECTUAL AND PERSONAL GROWTH OF STUDENTS IS ENHANCED BY A WIDE VARIETY OF EDUCATIONAL PROGRAMS AND EXTRACURRICULAR ACTIVITIES. CLARK BELIEVES THAT INTELLECTUAL GROWTH MUST BE ACCOMPANIED BY THE DEVELOPMENT OF VALUES, THE CULTIVATION OF RESPONSIBLE INDEPENDENCE, AND THE APPRECIATION OF A RANGE OF PERSPECTIVES. ◆ CLARK'S ACADEMIC COMMUNITY HAS LONG BEEN DISTINGUISHED BY THE PURSUIT OF SCIENTIFIC INQUIRY AND HUMANISTIC STUDIES, ENLIVENED BY A CONCERN FOR SIGNIFICANT SOCIAL ISSUES. AMONG MANY OTHER SCHOLARLY ENDEAVORS, CLARK CONTRIBUTES TO UNDERSTANDING HUMAN DEVELOPMENT, ASSESSING RELATIONSHIPS BETWEEN PEOPLE AND THE ENVIRONMENT, AND MANAGING RISK IN A TECHNOLOGICAL SOCIETY. ◆ CLARK IS DEDICATED TO BEING A DYNAMIC COMMUNITY OF LEARNERS ABLE TO THRIVE IN TODAY'S INCREASINGLY INTERRELATED SOCIETIES. THE UNIVERSITY MAINTAINS A NATIONAL AND INTERNATIONAL CHARACTER, ATTRACTING HIGH-CALIBER STUDENTS AND FACULTY FROM ALL QUARTERS OF THE GLOBE. AS A UNIVERSITY RESIDING IN AN URBAN NEIGHBORHOOD, CLARK ALSO STRIVES TO ADDRESS THE NEEDS AND OPPORTUNITIES OF CONTEMPORARY URBAN LIFE.

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The Clark Experience

The University College: Academic excellence and innovation

Since its inception more than a century ago, Clark has maintained a dual mission of providing top-quality undergraduate and graduate education. Maintaining the balance between the two can be challenging, but the results are worth it—undergraduates, graduate students and faculty working together on research that gives Clark its reputation for intellectual innovation.

Take, for example, historian Douglas Little's book, "American Orientalism: The United States and the Middle East Since 1945," which was released in spring 2003. While oil is usually considered the key factor in relations between the United States and Middle East, Little's book examines the important and often overlooked role of culture. Little, who is also dean of the college, found inspiration for his book in an undergraduate's paper about President Kennedy and Israel. Students also helped with research and refining the manuscript. Little asked undergraduates and graduate students to read his manuscript and offer input, in hopes of making the book accessible to a wider audience.

There's also biochemistry and molecular biology student Mary Badon '05, whose research with biologist Denis Larochelle earned her a coveted Barry M. Goldwater Scholarship and a Pfizer Summer Undergraduate Research Fellowship this year. These awards, along with an Anton Fellowship from Clark, are supporting Badon's research into centrosomes, a part of the cell that participates in the final step of cell division.

Such collaboration abounds at Clark and creates an intellectual environment that thrives on excellence, creativity and imagination.

International Character: A global community educating global citizens

As the world shrinks ever smaller, Clark students and faculty continue to think big. At Clark, global learning begins in the classroom, with courses that expose students to a wide variety of disciplines, theories and philosophies. Faculty seek solutions to problems faced in different regions of the world. Interdisciplinary programs—another historical strength at Clark—show students how those problems, and their solutions, often overlap.

Global learning continues outside the classroom, with students participating in study-abroad programs and research activities around the world. In addition, faculty often invite undergraduates to assist with research undertaken in other countries. When they return to Clark, both faculty and students enrich the campus community by sharing their experiences. In addition, speakers representing a wide array of cultures and perspectives visit Clark throughout the year to share their knowledge and experience with the campus and Worcester communities.

International students contribute immensely to Clark's intellectual and social environment. They bring different perspectives to the classroom—and to the residence hall, for that matter—and invite their fellow students to learn about other cultures. The International Student Association is one of the most active student organizations at Clark and sponsors one of the most popular events of the year—the International Gala. Held every spring, the gala showcases the foods, native dress, dance and other customs of the students' native countries. The event is typically standing-room only, evidence of the value the Clark community places on cultural exchange.

Social Responsibility: A university without walls

Clark students and faculty are also known for changing our world for the better. Through courses and research projects that aid community organizations, the activities of the many student organizations and Clark's work with the University Park Partnership (UPP), the boundaries that once separated the campus from the city have vanished. The University is now an integral part of the Main South and greater Worcester communities, and learning how to be a responsible citizen has become an essential component of a Clark education.

The best evidence of the University's commitment to social action is found right down Main Street at the University Park Campus School (UPCS), a public secondary school established seven years ago by Clark and the Worcester Public Schools. UPCS provides high-quality, college-preparatory education, with the promise of free tuition at Clark for UPCS graduates who meet Clark's admissions requirements and live in the area of Main South that is part of the UPP initiative. Clark students, faculty, staff and alumni are regular fixtures at the school, and UPCS students spend a lot of time on the Clark campus.

Social action is vital to the life of the University. The following are some more examples of how Clark's commitment to social change takes shape on campus:

The Community Engagement and Volunteering Center was established in an effort to further enhance learning and service opportunities for students and faculty. The center is the campus hub for volunteer opportunities and the headquarters for student groups dedicated to community service, such as the Making-a-Difference Scholarship recipients and the Fiat Lux Honor Society.

Clark is an active member of Campus Compact, a national organization of university presidents dedicated to the civic purposes of higher education. As part of Campus Compact's national campaign "Raise Your Voice: A Week of Action" last February, the CEV Center held a panel discussion about community service with students, faculty and members of the Worcester community. Clark also hosted a Student Leadership Institute, as part of a New England Regional Campus Compact conference.

Last year, 19 undergraduate students and an alumnus spent spring break working in one of the poorest areas of Nicaragua. Partnering with students from Uraccan University in Siuna, Nicaragua, the Clark students helped the community begin converting to organic farming practices. They helped cut down trees, rebuild fences and build compost boxes, attended several workshops about the local culture and spent time with their host students and families. This was the third year Clark students have participated in this project. The students were responsible for their own travel expenses and raised $600 to donate to a women's organization in Siuna.

History

Clark University is a teaching and research institution founded in 1887 as the first independent, all-graduate university in the United States.

Clark's first president was G. Stanley Hall, founder of the American Psychological Association, who at Harvard earned the first Ph.D. in psychology in this country. Clark has played a prominent role in the development of psychology as a distinguished discipline in the United States. In 1909, Clark was the location for Sigmund Freud's famous "Clark Lectures," which introduced psychoanalysis to this country.

Clark also has played an important role in the development of geography as a discipline. Clark has granted more Ph.D.s in this environmentally related area than any other school in the nation. The George Perkins Marsh Institute was the first research center created to study the human dimensions of global environmental change.

Researchers who have held Clark appointments include A.A. Michelson, the first U.S. Nobel Prize winner in the sciences and Robert Goddard, the father of the space age and the inventor of rocket technology. Other researchers at Clark measured the windchill factor, defined chemical double bonding, developed research leading to the birth-control pill, and made the first breakthrough in understanding how brain tissue regenerates itself.

Accreditation

Clark University is accredited by the New England Association of Schools and Colleges, Inc. through its Commission on Institutions of Higher Education. Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer-review process. An accredited college or university is one, which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Inquiries regarding the accreditation status by the New England Association should be directed to the administrative staff of the institution. Individuals may also contact:

Commission on Institutions of Higher Education
New England Association of Schools and Colleges
209 Burlington Road
Bedford, MA 01730-1433
(617) 271-0022
E-mail: cihe@neasc.org

The Academic Program

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Clark's strength is its ability to combine high-quality liberal-arts education with personal attention and advanced study opportunities. Clark has developed a unique program of liberal studies that provides a solid foundation for advanced study. Within the program, students choose from a range of courses designed to foster their critical-thinking skills and broaden their perspectives. Because they can choose among many different courses, students can take classes that interest them and, at the same time, satisfy their broad liberal-arts requirements.

By the spring of sophomore year, students declare a major in which they develop depth and expertise. The University offers 28 majors, 23 minors and 11 interdisciplinary concentrations, which can be combined to match individual interests and academic goals. These are at the heart of the advanced studies that distinguish Clark. Once students choose a major, their academic department becomes their intellectual "home," where they are able to work closely with faculty on research and other creative projects. As students acquire increasing depth and sophistication in a field of their choosing, they are able to take advantage of Clark's wide array of courses to construct a program of study uniquely suited to their interests and career goals. In many fields, students have the opportunity to enter an honors program or accelerate to an advanced degree.

Program of Liberal Studies

The foundation of a Clark undergraduate education is the Program of Liberal Studies. Through this program, students acquire the intellectual habits, skills and perspectives that are essential for self-directed learning. They are given a framework within which they can select a program of study and receive a broad introduction to liberal and lifelong learning. Students have the option of fulfilling the requirements of the program of liberal studies through the International Studies Stream, a special program, which consists of courses that prepare them to better understand global, political, cultural and economic issues.

The Program of Liberal Studies has two components:

1. Critical Thinking Courses: While every course in the University involves work in critical thinking, two types of courses place special emphasis on the cultivation of these skills. Students take courses in each of these areas:

- **Verbal Expression:** Courses that place special emphasis on the relationship between writing and critical thinking within a particular discipline.
- **Formal Analysis:** Formal Analysis courses include the use of a formal, symbolic language as appropriate for a specific discipline, rules of logic for that language, and the use of that language for modeling the subject matter of the discipline.

All new students entering Clark are required to demonstrate basic competency in mathematics and quantitative thinking. Some students demonstrate this competency through achieving a satisfactory score on a standardized test or a Clark placement test. Others are required to successfully complete IDND017 Foundations of Quantitative Thinking prior to enrolling in a formal-analysis course.

2. Perspectives Courses: Perspectives courses offer breadth and introduce students to the different ways in which various disciplines or fields define thinking, learning and knowing. Students must successfully complete one course in each of the following six perspectives categories, with each course taken in a different academic department:

- **Aesthetic:** Aesthetic Perspective courses emphasize artistic expression and the perception, analysis and evaluation of aesthetic form. These courses are designed to enhance students' appreciation and understanding of the arts.
- **Global Comparative:** Global Comparative Perspective courses introduce students to comparative analysis by exploring the cultural, political or economic aspects of human diversity around the world. They provide students with tools for analyzing human experience by examining similarities and differences in a global or international context.
- **Historical:** Historical Perspective courses develop students' capacity to understand the contemporary world in the larger framework of tradition and history. Courses focus on the problems of interpreting the past and can also deal with the relationship between past and present. All courses are broad in scope and introduce students to the ways scholars think critically about the past, present and future.
- **Language and Culture:** Language and Culture Perspective courses foster the study of language as an expression of culture. Students may study foreign languages, which highlight the relationship between language and culture, or English-language courses that deal with the same issue.
- **Natural Scientific:** Scientific Perspective courses teach the principal methods and results of the study of the natural world. Courses focus on the knowledge and theoretical bases of science. They also include laboratories or similar components to introduce students to the observation of natural phenomena and the nature of scientific study.
- **Values:** Values Perspective courses examine the moral dimension of human life as reflected in personal behavior, institutional structures and public policy in local and global communities. Courses taught from the values perspective focus not only on the systematic formulation and analysis of moral and ethical claims, but also on how moral decisions affect both the individual and society.

The First-Year Seminars

First-year seminars are offered by a variety of academic departments. The seminars allow students to explore, in-depth, particular issues and subjects in their first or second semester. Seminars are limited to no more than 16 students, and the faculty member teaching the seminar serves as the adviser for the students until they declare a major. The seminars encourage first-year students to engage in the kind of intense intellectual experience that other colleges often reserve for juniors and seniors.

First-year students have the option to participate in one of these first-year seminars—intensive, stimulating and challenging courses taught by experienced professors. Space is limited, so it is best to sign up as soon as possible. Follow the directions below to sign up for a seminar, but please note that enrollment is not guaranteed.

First-Year Seminars (Offered in 2004-2005)

ARTS025 Eros and Thanatos
BIOL040 Brain and Environment
CHEM101.2 Introductory Chemistry
CMLT152 Lyric Poetry: Songs of the Self
CSCI110 Can Computers Think?
ENG113 The Literature of Baseball
ENG114 American Talk
GEOG075 Land Degradation
GEOG090 Native Americans and Natural Resources
GEOG179 Globalization, Environment and Justice
GOVT102 Political Science Fiction
HIST037 19th-Century America Through Women's Eyes
PHIL104 The AIDS Pandemic
PHIL108 Privacy Protection in Law and Ethics
PSYC196 Psychology Through History

Course descriptions for first-year seminars are listed in the section titled "Majors, Minors and Special Programs" under the corresponding host program. See page 45 for more details.

Selection Process

- Go to www.clarku.edu/fys to fill out the online selection form.
- Students who wish to select a writing-intensive seminar (one that fulfills the verbal-expression requirement) must be placed at the verbal-expression level. Information about the process for identifying a student's writing placement is available at the Writing Center Web site at www.clarku.edu/writing/.
- It is important to provide alternate choices for your seminar selection. Please number your choices in order of preference.
- Please note that selecting a seminar does not mean you will be enrolled in one. These seminars are popular, space is limited and enrollment is not guaranteed.
- If you have any questions, please call the Academic Advising Center at 508-793-7468 or e-mail advising@clarku.edu.

Departmental Majors

Sometime before the end of their sophomore year, students choose a major—the area in which they will pursue a course of study in-depth. Students may choose a traditional discipline or an interdisciplinary major, or in some cases, may design a major tailored to their particular academic interests. While anchored in one area, the undergraduate major is structured to include courses in related disciplines. This ensures that breadth of knowledge is gained along with specialization. A major consists of 12 to 19 courses designated by a department or program. Majors must be declared prior to the beginning of the junior year.

Majors are offered in:

Ancient Civilization
Art (Art History, Studio Art)
Biochemistry and Molecular Biology
Biology
Chemistry
Communication and Culture
Comparative Literature
Computer Science
Economics

English
Environmental Science and Policy
Foreign Languages (French, Spanish, Combined)
Geography
Global Environmental Studies
Government and International Relations
History
International Development and Social Change
Management
Mathematics
Music
Philosophy
Physics
Psychology
Screen Studies
Sociology
Theater Arts

Interdisciplinary Majors

One of Clark's strengths is the eagerness of faculty and students to cross the traditional boundaries between academic fields. Interdisciplinary majors, special programs and concentrations help students to see beyond the barriers of academic specialization.

Student-Designed Majors

While most Clark students can and do fulfill their academic goals through regularly established departments and interdisciplinary programs, the University recognizes that some students may have special interests and goals that cannot be met through normal channels. The student-designed major program is intended to provide flexibility for these students while ensuring rigorous academic standards. Students are normally expected to have a GPA of 3.0 or higher to pursue the student-designed major. Student-designed majors are coordinated by the associate dean of the college and developed with the guidance of three faculty advisers. They must be approved by the associate dean of the college by the beginning of the junior year. Guidelines for student-designed majors are available in the Dean of the College Office and in the Academic Advising Center.

Minors

Minors give students an opportunity to gain depth in an academic area in addition to their major field of study.

Minors are offered in:
Ancient Civilization
Art History
Biochemistry and Molecular Biology
Biology
Chemistry
Communication and Culture
Computer Science
Economics
Education
English
Foreign Languages (French, German, Spanish)
Geography
Government and International Relations
History
International Development and Social Change
Management
Mathematics
Music
Philosophy
Physics
Screen Studies
Sociology
Theater Arts

Concentrations

Concentrations allow students to cross traditional academic disciplines to gain broad perspectives on a subject in addition to their major. Concentrations are offered in:

Asian Studies
Bioinformatics
Computational Science
Ethics and Public Policy
Holocaust and Genocide Studies
Jewish Studies
Law and Society
Peace Studies
Race and Ethnic Relations
Urban Development and Social Change
Women's Studies

Accelerated Degree Programs

Clark offers several programs that allow students to complete the requirements for bachelor's and master's degrees in an accelerated, five-year period. Students may obtain a master of arts (M.A.), master of business administration (M.B.A.), master of public administration (M.P.A.), master of science in finance (M.S.F.), or master of science in professional communication (M.S.P.C.). Students apply to the accelerated degree programs in their junior year, begin meeting requirements in their senior year, and complete those requirements in the fifth year. Bachelor's degrees are granted en route to the master's degree.

For students meeting eligibility requirements, the fifth year is tuition free. To qualify for free tuition in the fifth year, a student must: be a full-time undergraduate for four years at Clark; meet bachelor's/master's course prerequisites and receive a Clark bachelor's degree within five years of initial entry into Clark; earn an overall 3.25 grade-point average during the second and third years and again in the fourth year.

Undergraduates who transfer to Clark are eligible for a 50 percent tuition fellowship during the fifth year of study. To qualify, a transfer student must begin full-time study at Clark no later than the end of the sophomore year; earn at least a 3.25 grade-point average for courses taken at Clark; maintain a 3.25 grade-point average during the fourth year; and meet program course requirements.

The University has approved accelerated programs in biology; business administration; chemistry; community development and planning; education; environmental science and policy; finance; geographic information science; history; international development and social change; physics; professional communications; and public adminstration.

For further information and application procedures, visit www.clarku.edu/accelerate or contact the Graduate School at (508) 793-7676.

Preprofessional Programs

Clark University recognizes that preparation for a professional career is fully compatible with a liberal-arts education. The Prelaw Program is administered through Career Services in conjunction with a faculty advisory committee. Contact Career Services for more information. Premedical or predental students are advised through a special Premedical and Predental Advisory Committee. For more information, contact advisory committee chair Professor David Thurlow, Department of Chemistry.

Internships

Students are offered the opportunity to earn credit working off campus as part of their educational program. Academic credit is offered for internships that take place under the supervision of carefully selected agency sponsors in conjunction with appropriate Clark faculty. More information on academic internships can be found online. Clark also participates in the Washington Semester Program with American University in Washington, D.C., and the Washington for Internships and Academic Seminars. Both programs are coordinated by Adriane van Gils, Community Engagement and Volunteering Center. Qualified students may participate in these programs and spend a semester studying and working in the nation's capital.

Office of Study Abroad Programs

Leir Center Luxembourg

Clark University is well known for its international character and is committed to encouraging a strong Clark presence abroad and an international presence on campus. The Office of Study Abroad Programs coordinates international study programs. Clark has programs in the following countries: China, the Dominican Republic, England, France, Germany, Japan, Scotland, Spain and Namibia.

The Leir Center offers students and faculty additional opportunities for study and research abroad. A special feature of the program is the May Term, which begins right after the end of the spring semester. Clark and Holy Cross faculty take groups of students to Luxembourg on a four-week academic program especially suited for Luxembourg and its environment.

Students who study abroad on a Clark program pay the International Program Fee (approx. tuition, room and board). Students may earn up to a full year of credit through study abroad. Students interested in study abroad should consult the Office of Study Abroad Programs at Corner House or call (508) 793-7363 for more information.

International Students and Scholars Office

The International Students and Scholars Office (ISSO) advises international students, faculty members, scholars and their dependents on matters relating to immigration (visas, passports, travel) and employment, as well as academic, social, financial and personal concerns related to daily life in the United States and at Clark University. The ISSO serves approximately 600 international students and scholars from more than 90 countries, attending Clark during the academic year and summer sessions. Through orientation and programming, the ISSO seeks to assist with the cultural and academic adjustment of international students and scholars to better meet their educational objectives. As a member of the division of Student Affairs, the ISSO also works to promote cross-cultural awareness among the Clark community.

Army and Air Force ROTC

Clark University students may participate in Army and Air Force Reserve Officers' Training Corps at Worcester Polytechnic Institute. U.S. citizens, who are physically qualified, earn their degree from Clark University, and satisfactorily complete the ROTC program, will be commissioned as second lieutenants in the U.S. Army or Air Force. Students may request an educational delay of active duty in order to attend graduate school. First-year and sophomore students can compete for two- and three-year scholarships, which are primarily based on academic performance and major. Students interested in Army ROTC should contact the Military Service Department at Worcester Polytechnic Institute (WPI). Students interested in Air Force ROTC should contact the Department of Aerospace Studies at WPI.

The Strassler Family Center for Holocaust and Genocide Studies

The Strassler Family Center for Holocaust and Genocide Studies provides vital national and international leadership in educating future generations of scholars. The center, in conjunction with Clark's history department, offers the nation's first Ph.D. program specifically in Holocaust history and the study of genocide. Clark also offers the richest interdisciplinary undergraduate program in Holocaust and genocide studies in the country. It includes courses in history, literature, psychology, government and sociology. A special feature of this program is the May Term in Prague and Terezin in the Czech Republic, which, every other year, brings a group of Clark undergraduates to central Europe for an intensive three-week course that includes visits to key Holocaust historical sites.

Clark is the first college or university anywhere to have two occupied fully endowed, full-time tenured professorships in Holocaust history, as well as a professorship dedicated to the study of the Armenian genocide.

3/2 Engineering Program

The 3/2 engineering program consists of three years of studies at Clark followed by two years at an affiliated engineering school. The program leads to a bachelor of arts from Clark after four years and, after the fifth year, a bachelor of science in engineering from the engineering school. Clark offers 3/2 engineering programs with Columbia University, Washington University and Worcester Polytechnic Institute. For more information, contact program coordinator Professor Charles Agosta in the physics department.

Academic Advising

The Academic Advising Center helps students plan their academic programs through a coordinated set of activities and services. All new students are assigned a faculty adviser who helps them select courses and programs. Once a student has chosen a major, academic advising is coordinated by faculty within the student's major department.

Among the Academic Advising Center's support services are:

- **The Writing Center** Recognizing the importance of writing in all fields, Clark offers cross-disciplinary, departmental and special writing-center programs. Supplementing the curriculum, Clark's Writing Center provides individual tutoring and noncredit workshops for all interested students. Writing-center offerings are flexibly designed to help students at all levels achieve clear, correct, graceful writing.
- **Special Needs Services** These services are designed to foster functional independence for students with special learning needs. Students with documented disabilities may enroll in these services. The coordinator of disability services offers advising and academic assistance and helps students negotiate reasonable accommodations. An early orientation for eligible first-year students is also part of these services.

Other Academic Support Services

- **Language Arts Resource Center** The Center provides video and audio tapes as well as access to satellite broadcasts of international news and programs to assist students learning a foreign language. The center is located on the fourth floor of Goddard Library.
- **Goddard Library Public Services—Reference Desk** Students working on research projects may receive assistance at the reference desk on the use of the extensive research resources of Clark University libraries as well as the Colleges of Worcester Consortium library system.

American Language and Culture Institute (ALCI)

Clark University's American Language and Culture Institute, known to students around the world as ALCI, offers intensive ESL programs for students who want to improve their English-language skills for academic or professional reasons. Through experiential learning, students receive a thorough orientation into American culture. ALCI serves as a resource for international undergraduates, graduate and Worcester-area community students for whom English is a second language, providing further opportunities in the training of speaking the English language, orientation to American life and culture, and preparation for successful university study.

Instruction is offered at up to five levels of proficiency, beginning through academic preparation. Dedicated, trained professionals provide 20 or more hours per week of intensive ESL instruction, as well as private tutorial sessions. Students are entitled to many services offered by the University including the Goddard Library, computer laboratories, athletic facilities, social activities, campus lectures and day trips to local and regional places of interest.

Colleges of Worcester Consortium

Clark is a member of the Colleges of Worcester Consortium, which means that Clark sophomores, juniors and seniors can enroll for one course a semester at Anna Maria College, Assumption College, Atlantic Union College, College of the Holy Cross, Worcester Polytechnic Institute, Worcester State College, University of Massachusetts Medical School, Tufts University Veterinary School, Becker College, Quinsigamond Community College, Massachusetts College of Pharmacy and Health Sciences, or Nichols College.

Consortium Gerontology Studies Program

The Worcester Gerontology Studies Program is offered through the Colleges of Worcester Consortium. Courses related to aging are available at various consortium colleges, reflecting the multidisciplinary nature of gerontology. This program provides courses and internships in a coordinated curriculum leading to a certificate in gerontology. Career planning for participating students is organized through the Consortium Office in coordination with on-campus career services.

For further information about the Gerontology Studies Program, contact program adviser David Stevens, Clark Department of Psychology or Judy Gardner Ainlay, program coordinator, at 508-754-6829, ext. 3017.

Tuition and Financial Aid

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General Information

Tuition, board, residence-hall charges and certain fees are due and payable prior to the beginning of each semester. The dates for 2004-2005 are: July 23, 2004 for fall semester and December 15, 2004 for spring semester. Students are not permitted to register for any semester until all financial obligations have been arranged satisfactorily with the University.

A budget payment plan is available and is explained later in this section.

There is a late fee of $50 assessed against all accounts not paid in full by the July and December due dates. In addition, interest at the rate of 1 percent per month (12.7% APR) will be charged on all past-due balances (including tuition deposit). If a student fails to fulfill his or her financial obligations and their account is referred to a collection agency, all fees are the responsibility of the student.

Payment Options

Clark offers several payment alternatives to the usual tuition payment each semester. These options may be used individually or in combination with each other to best suit the needs of Clark families.

Monthly Payment Plan: Clark University, in cooperation with Tuition Management Systems, makes available a flexible, interest-free payment plan. This plan allows a family to make 10 equal monthly payments beginning in June. You determine the amount of the bill to be covered—all or only a portion. The $55 application fee is the only charge. Tuition payment insurance is automatically included.

Tuition Inflation Hedge: Under this program, Clark University offers families the option of fixing the tuition rate for four years at the first-year level. To do so, families pay four years of full tuition during the first year, at the current rate, avoiding any increases in tuition for the following three years.

For more information and an application, please contact the associate controller/bursar at (508) 793-7498.

All past balances will be subject to an interest charge of 12 percent per year.

Summary of Tuition and Other Charges for First and Second Semester of Academic Year 2004 – 2005.

Tuition	$28,000
Room: Residence Hall/Home	
Single room	5,130
Singles within suites	5,466
Double room	3,300
Double within suites	3,740
Triple room	3,300
Triple plus	3,740
Quad	3,300
Board (Compulsory for first- and second-year students)	2,100
Student Activity Fee	265
Charges that apply to new students only:	
Contingency Deposit (refundable)	50
Orientation Fee	200
International and Early Arrival Orientation Fee	250
Transfer Orientation Fee	100
Spring Orientation Fee	100
Other Fees:	
Clark Student Health Insurance	$975
Students will be required to enroll in the Clark Insurance Plan unless they complete a waiver card stating they have other coverage	
Application Fee (undergraduate)	50
Deposits:	
Admission Deposit	300
Residence Hall Deposit	100
Tuition Deposit (upperclassman)	300

Note: Costs are subject to change year to year.

Transcripts

Transcripts must be requested in writing from the Office of Student Records. There is no charge for enrolled students for unofficial transcripts. Official transcripts cost $4 each. Transcripts are not issued to students with outstanding financial obligations.

Refund Policies

General Refund Policy

Students who officially withdraw or take an official leave of absence from the University are required to submit paperwork to the Dean of Student's Office. A student who officially withdraws during the first one-tenth of the semester will be charged 10 percent of his/her tuition, room, board and mandatory fees; after the first tenth, but before the end of the first quarter, he/she will be charged 50 percent; after the first quarter, but before the end of the second quarter, he/she will be charged 75 percent. There is no reduction in charges after the second quarter of the semester. If a student withdraws from school, but continues to avail himself/herself of services, he/she will be charged for those services.

Study-Abroad Refund Policy

Due to the special conditions for payments to overseas programs, a different policy is necessary. Students who are studying abroad should refer to the documentation provided when they are accepted in the program for specific information on the refund policy.

Medical Refund Policy

If a student's doctor recommends that he/she leave the University for medical reasons within the first half of the semester, and later a decision is made that the student must officially withdraw, charges are calculated in accordance with the schedule above based on the date of the doctor's initial recommendation that the student leave the University. The doctor's letter must be an original on letterhead.

Normal Program and Course Load Variance

A normal full-time academic program is eight course units per year (four course units per semester). Students may elect to vary this pattern by taking three course units during any semester. A course load of three courses per semester is a full-time course load and is billed accordingly. Juniors and seniors who have received College Board permission may choose to take five courses in a semester at no additional charge. All students must complete a minimum of seven full-time semesters to meet degree requirements. Students may enroll in two units per summer. While there is no limit to the total number of summer courses students may take, normally only four units may be counted toward graduation.

Seniors in their last semester are expected to take the necessary number of units (up to five) for their degree. Full-time first-year or transfer students in their first semester at Clark University, must enroll in a four-course program. Students re-entering the University or returning from leaves of absence, also must enroll in a four-course program during their first semester. Nontraditional students should consult with the dean of the college.

Orientation Fee

A fee of $200 is assessed to all new students to cover services and activities provided during orientation. Early orientation is $250 and spring orientation is $100.

Contingency Deposit

All new undergraduates are required to pay a $50 deposit to cover minor charges, such as unreturned library books, which may be incurred during the year. Students are billed each year for whatever charges are incurred. The balance is refunded upon completion of studies.

Housing Deposit

The $400 fee submitted by first-year students to Admissions includes a $100 housing deposit. Each spring, a deposit of $100 is required of students in order to enter the room selection process. The deposit is credited towards the yearly housing fee and is nonrefundable.

Application Fee

A fee of $50 must accompany the application for admission to the University. It is not refundable.

Student Activity Fee

A fee of $132.50 per semester, levied and administered by the Student Council, is required of all matriculated undergraduates except those on a program of study abroad. The Student Council allocates funds to student organizations that provide a wide range of cultural, social and recreational activities.

Admission Deposit

For entering students planning to live on campus, a nonrefundable admission deposit of $300 and a housing deposit of $100 are required to indicate acceptance of an offer of undergraduate admission. For students planning to live off campus, only the $300 admission deposit is required. Deposits are credited toward charges for the first semester in attendance at Clark. Deposits are forfeited if the student does not enroll for the specified semester.

Tuition Deposit

A deposit of $300 is required of all students planning to return to the University for their sophomore, junior or senior years. It is payable by June 1 and is credited toward charges for the fall semester. The deposit of $300 is forfeited if the student does not enroll for the specified semester.

Clark OneCard

An identification card is issued during orientation to all new students without charge and is an official college ID. The Clark OneCard looks like an ordinary University ID, but it's much more than that. The wide magnetic strip on the back of the Clark OneCard acts as a key to a number of services on campus including access to residential and academic buildings, athletic facilities, Dolan Field House, Dana Commons, Goddard Library, meal plans, computer account password and the CashCard Program. Use a single card for all your transactions.

The CashCard Program works like cash and can be used at both on- and off-campus venues. On-campus venues include Café Bon Appetit, Higgins Bistro, Moonlight Café, General Store, Clark Print & Copy Center and Clark Bookstore. Off-campus venues include Domino's Pizza, Fantastic Pizza and PepperCorn's Grille.

The cardholder should report a lost or stolen card immediately to the University Police, the food-services provider on campus, or the ID office located in Geography 101. A fee is charged to replace lost, stolen or damaged cards.

Keys and Key Security

Room keys, mailbox combinations and residence hall-entry cards are issued to students upon arrival at Clark. Fees are charged for the replacement of keys and cards that are lost during the year, and it is mandatory to return room keys and entry cards before leaving campus at the end of the academic year.

Financial Aid

The Office of Financial Assistance provides guidance to all students who need assistance financing their Clark education.

General Information

Financial aid is allocated on the basis of financial need and academic performance. Special talent in music, art and other areas, as well as leadership ability, are also considered. The Office of Financial Assistance assesses each student's financial circumstances and need through a uniform analysis of the Free Application for Federal Student Aid (FAFSA) for federal and state funds, and the PROFILE Form for institutional funds. When required, adjustments are made in accordance with University policies and procedures. The assessment takes into account family income and assets, age of parents, financial commitments to other dependents and members of the family, and other circumstances.

The University expects that a student's resources for education will come first from family and his/her own savings and earnings. The University will make every effort to assist most students in obtaining the difference between the total cost and expected family resources. No student should fail to apply for admission to Clark University because of the inability of his/her family to pay total educational costs.

Student Employment

Student employment opportunities at Clark include on- and off-campus part-time jobs and full-time summer employment, coordinated by the Office of Financial Assistance. At the beginning of each semester, Clark students with federal work-study awards receive a listing of available on-campus jobs and may choose a job best suited to their abilities and interests. It is important to note that an offer of Federal Work Study as part of a student's financial-aid package is not a guarantee of that amount, but rather a limit of potential earnings. Students receive paychecks for actual hours worked, which can be used for personal expenses, books and supplies, or saved for future bill charges. The Office of Financial Assistance also maintains a list of on- and off-campus jobs available to students not receiving federal work-study awards.

Independent Sources of Aid

All applicants for financial aid are urged to pursue independent sources of financial aid. Clark cannot replace outside funds for which a student is eligible but fails to apply. Scholarships are often awarded to graduating seniors by high schools and/or private scholarship agencies in students' local communities. Additional information usually is available in guidance offices or online at www.fastweb.com.

Any assistance received from outside sources other than Clark University must be reported to the Office of Financial Assistance on the Award Acceptance Agreement form or in writing to the Office of Financial Assistance. These awards may affect your Clark financial-aid package.

Clark's policy for these adjustments is as follows:

- For scholarships derived from meritorious sources that are in recognition of a particular achievement of the student, unmet institutional need will be filled first. Any remaining scholarship will reduce loan, then work-study. If there is additional remaining scholarship, it will reduce Clark grant, dollar for dollar.
- Private grants/scholarships derived from nonmeritorious sources (state or federal grants or tuition subsidies based on parents' employment) will reduce Clark grant, dollar for dollar.
- An important source of federal financial aid is offered in the form of Federal Pell Grants. These grants, which vary in amounts, are available to certain students who demonstrate financial need according to federal methodology.

Federal Stafford Loans are available to all students, regardless of need. Students may borrow up to $2,625 their freshman year, $3,500 sophomore year and $5,500 the junior and senior years of an undergraduate program. Students may borrow up to $8,500 per year of a graduate program. The subsidized version is limited to students who demonstrate financial need according to federal methodology. It is a variable interest rate capped at 8.25 percent. No payments are due, nor accrue interest, until after graduation or until a student is enrolled less than half time. It may be deferred for continued education. The unsubsidized version offers the same terms and conditions; however, interest begins to accrue during the in-school period.

Veteran's benefits may be available for service veterans and children of deceased or disabled veterans. Eligibility can be determined by contacting the local Veterans Administration Office.

Rehabilitation Assistance may be available for students who qualify for educational benefits. Information concerning rehabilitation services can be obtained at the State Rehabilitation Office.

Aid Awarded by Clark University

Clark University makes a commitment to entering students during their first year and in each subsequent year at Clark, as long as they continue to demonstrate financial need, continue to meet the standards of satisfactory academic progress, have filed all necessary application materials by the required deadlines and have not exceeded program limitations of financial aid, and as long as federal and state funding to Clark's Office of Financial Assistance continues at the same level. Although any Clark student may apply for aid as an upperclassman, funding is guaranteed only to those students who received aid their first year at Clark and have met the above requirements.

Assistance at Clark is packaged in the form of scholarship, loan, grant and/or employment from the following sources:

- **Alumni and Friends Scholarship Program** A portion of the University income is reserved for this purpose, and gifts from alumni, parents and friends provide additional scholarship funds. Eligibility for Clark Scholarships is determined under institutional methodology used in the analysis of the aid application materials.
- **Federal Supplemental Educational Opportunity Grants** One of three campus-based federal-aid programs available to college students demonstrating exceptional financial need. Continued support of this program is contingent upon annual Congressional allocations.
- **Federal Perkins Loans** One of three campus-based federal-aid programs available to college students demonstrating exceptional financial need. Loans made under this program carry a fixed 5 percent interest rate. Payment of principal and accrual of interest is deferred until after graduation or until a student is enrolled less than half time. The loans carry a 10-year repayment schedule with a $40 monthly minimum. Continued support of this program is contingent upon annual Congressional allocations and the repayments of previous recipients.
- **Federal Work Study** One of three campus-based, federal, student-aid programs, this work program gives eligible students the opportunity to work during the school year to earn money for personal expenses, travel, books and supplies; and over the summer towards the following school year's educational expenses.
- **Presidential and Achievement Scholarships** Awarded to incoming students based on specific academic criteria, all recipients of these scholarships are selected as part of the admissions application process. All scholarships are renewable if a student meets certain academic criteria while at Clark University.

Satisfactory Academic Progress

Students receiving federal financial assistance of any type (including parent loans) are required to make "satisfactory academic progress" toward their degree. Satisfactory academic progress is defined by regulations of the U.S. Department of Education as "proceeding in a positive manner toward fulfilling degree requirements." This is differentiated from "academic standing," which refers to students whom the institution allows to continue to enroll.

Full-time bachelor's degree candidates must maintain a 2.0 cumulative grade-point average and complete five courses the first year; six courses the second; and seven courses each year thereafter. These requirements are prorated for less than full-time students and students attending less than a full academic year. Evaluation of satisfactory academic progress is made at the end of each spring term.

Students who are determined not to be making satisfactory academic progress are allowed one semester of continued assistance under probation status in order to obtain the necessary requirements for maintaining progress. If students are still not making progress after one semester of probation, aid is discontinued. Students are allowed only one semester of probation while at Clark. Appeals to this policy for special and unusual circumstances may be made in writing to the director of financial assistance.

Students are limited to eight undergraduate semesters of institutional (Clark) financial aid, unless otherwise approved by the director. Appeals should be written to the director of financial assistance.

Return of Title IV Funds (federal and some state financial aid)

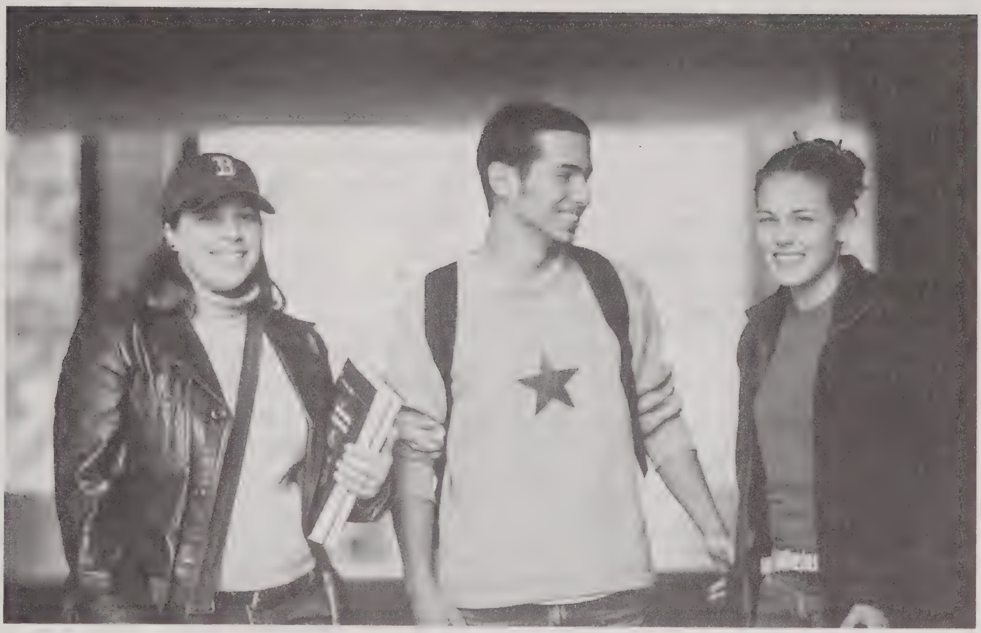
Title IV fund rules assume that a student earns his or her aid based on the period of time he or she remained enrolled for the term. Unearned aid, other than work-study, must be returned to the U.S. Department of Education up until the 60-percent point in the term. At the 60-percent point in the term, the student is considered to have earned all of his or her aid.

Return of Institutional Financial Aid

Students are allowed to retain institutional financial aid (Clark grants and scholarships, including academic scholarships) at the same rate that the credit-to-tuition (refund) policy is calculated. That is to say, a student leaving or withdrawing in the first tenth of a semester has earned 10 percent of their institutional financial aid, students leaving or withdrawing in the first quarter are allowed to retain 50 percent of their financial aid, students withdrawing during the second quarter may retain 75 percent of their aid, and students leaving or withdrawing after the second quarter may retain 100 percent of their Clark financial aid.

Financial Assistance for International Students

The Admissions and Financial Aid Committee, in keeping with Clark University's commitment to a strong international presence on campus, provides financial assistance to a limited number of international students each year. Competition for this assistance is extremely keen and the awards are based on both academic merit and financial need. Since the ability to meet the cost of attendance at Clark University must be taken into consideration, the admissions process is need aware. Several applicants each year show excellent academic records but do not demonstrate the financial ability necessary to meet the full cost of attendance. It is not unusual for the committee to deny an application on financial grounds even though the applicant is academically qualified.



Undergraduate Admissions Requirements

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First-Year Student Admission

Clark University welcomes applications from men and women regardless of race, color, sex, sexual orientation, religion, age as defined by law, handicap, national origin or financial condition. Selection is competitive and based primarily on academic promise as indicated by secondary-school performance, recommendations, and standardized test (SAT, ACT) scores. Secondarily, decisions reflect consideration of the individual experience and particular circumstances unique to each candidate.

Entrance Requirements

A diploma from an accredited secondary school or G.E.D. equivalency is required for admission to Clark. The academic preparation for successful candidates should include four years of English; three years of mathematics; three years of science; two years of both a social science and a foreign language; and other credit electives recognized in the secondary-school curriculum, including the arts. The University is most concerned with the strength of the student's academic program and therefore recommends this framework of courses. However, the University values diversity and understands that some students may be following different high school-curricular patterns.

The Application

Students applying to Clark should contact the Admissions Office for an application or they may use the Common Application or various electronic applications. The admissions staff has no preference for any particular application form, but may request supplemental information when needed. A nonrefundable application fee of $50 or official fee-waiver request must accompany the application. Transfer and international students should contact the Admissions Office for specific supplemental forms.

Clark University
Admissions Office
950 Main Street
Worcester, MA 01610-1477
Telephone: 508-793-7431
Fax: 508-793-8821
E-mail: admissions@clarku.edu

Students applying for financial assistance should refer to information provided in the "Tuition and Financial Aid" section of this catalog.

Early Admission

Exceptional students are welcome to apply for early admission after the junior year when encouraged and supported by enthusiastic recommendations from their secondary schools.

Early Decision

If Clark University is clearly your first choice, we encourage you to apply "Early Decision." By signing the Early Decision statement you agree that, if admitted, you will withdraw all other college applications. The Early Decision deadline is November 15, with notification by early January. A candidate who is deferred under Early Decision will automatically be reconsidered for regular admission in March.

Regular Admission

Candidates for admission in September should apply as early as possible, usually during the first grading period of their final year of secondary school. The deadline for applications and supporting credentials is February 1 or January 15 to be considered for merit-based scholarships. (November 1 for January admission.)

Admission Tests

All U.S. first-year students are required to submit results of the SAT I or American College Test (ACT).

If English is not your primary language, you should submit scores from the Test of English as a Foreign Language (TOEFL). Successful candidates usually score 213 or better. (See section on International Admissions.)

Interviews and Campus Visits

Interviews are not required but are strongly recommended. The most informative way to learn about Clark University is to spend a day on campus. Prospective students are invited to take tours, sit in on classes and meet students and faculty members. Please call, write or e-mail the Admissions Office for information regarding interviews, tour schedules and directions.

If you cannot visit the campus, we encourage you to consider speaking with one of the University's alumni admissions representatives. Contact the Admissions Office for details.

Admission Notification and Deposits

Admissions decisions for September are released on or about April 1. Clark subscribes to the Candidate's Reply Date of May 1 and requires a nonrefundable deposit that is credited toward first-semester charges. January applicants can expect to receive an admission decision by mid-December with the deposit due within two weeks of notification.

Deferred Admission

Students who want to postpone enrollment must submit a request in writing by the assigned deadline. A nonrefundable deposit that is credited toward first-semester charges is required. Students who undertake full-time academic work in the interim may not defer enrollment but must reactivate their applications and submit official transcripts for review.

Advanced Standing

Students may earn advanced standing with scores of 4 or 5 on Advanced Placement (AP) tests administered by the College Entrance Examination Board, submission of certain international educational credentials (i.e., International Baccalaureate, Abitur, A-Levels, etc.) and by transferring credit from college-level course work.

International Admission

Clark uses a separate International Application for Admission for non-U.S. citizens, which may be obtained by contacting the Admissions Office. Because of the sequential nature of University courses, Clark encourages all international students to apply for the fall semester (deadline February 1).

The Test of English as a Foreign Language (TOEFL) is required of all candidates whose native or official language is not English. Information concerning test dates and locations may be obtained by writing to: TOEFL, P.O. Box 6151, Princeton, NJ 08541-6151 U.S.A. or at www.toefl.org. Students who have completed four or more years of U.S. secondary-school education in the U.S. or abroad should submit results of the SAT I or ACT standardized tests. The Certificate of Eligibility (I-20 form) necessary to obtain a student visa will be granted only after full admission and receipt of complete financial documentation (in the form of an official bank statement indicating a monetary amount).

Transfer Admission

Clark welcomes applications for admission with advanced standing from students attending two- and four-year institutions. A separate transfer application is required, which can be obtained by contacting the Admissions Office. Applicants for September should file by April 1; January applicants by November 1. All transfer candidates are required to submit evidence of good standing, complete transcripts of all previous academic work–secondary and postsecondary–including standardized tests (if taken) and any other information requested by the Admissions Committee, such as recommendations and course catalogs.

Normally, credit is given for academic courses in the liberal arts previously taken at accredited colleges and universities and by advanced standing procedures, described above. No credit is given for grades lower than C. Evaluation of credits for college courses is made at the time of admission or upon receipt of final transcripts and is used in planning a program of study at the University. Up to 50 percent of Clark's degree and major requirements may be awarded on this basis, and a minimum of two academic years at Clark is necessary for completion of degree requirements.

Requirements for a Bachelor's Degree

Academic credit toward the bachelor of arts is expressed in terms of course units. Each Clark course is awarded one unit (equivalent to four credit hours). To earn a bachelor's degree, a student must complete a minimum of 32 course units (128 credit hours) with a minimum 2.0 grade-point average. He/she must receive a C– or better in at least 24 of these courses. Successful bachelor's degree candidates must also complete all institutional, major departmental and Program of Liberal Studies requirements for graduation. Transfer credit for students with fewer than 32 courses in residence is established by the Transfer Evaluation Committee. Students may accelerate their progress toward graduation by no more than one semester without special approval of the College Board. For the purpose of transfer, a full Clark course is equivalent to four semester hours of credit.

Transfer Credit

To earn a bachelor's degree at Clark, a student must earn at least one half of the total number of course units for the degree and at least one half of the total number of course units taken for fulfillment of a major in a Clark program. Students must be enrolled full time at Clark for both semesters of their senior year. Units earned through Clark programs off campus also meet the requirement. "External credit" is credit earned in the following categories:

1. Advanced placement
2. Credits transferred from other American colleges and universities
3. Credit earned in foreign-study programs administered by American or foreign institutions of higher learning other than Clark.

The amount of transfer credit that can be applied to a bachelor's degree at Clark is limited by category.

1. No more than one semester (four units) may be granted in advanced placement (A.P.). A.P. credit is defined as one unit of degree credit assigned for a score of 4 or 5 on a CEEB A.P. examination taken prior to matriculation and before the student formally enrolls. Students also may receive credit for college work completed prior to their matriculation at Clark University if that credit is in a content area deemed academically acceptable to Clark and is from an accredited college or university.

2. Students who present an IB Diploma and who also earn a minimum of 36 composite points with a score of 5 or higher in all six of their IB examinations will receive eight Clark units (one full year). Students who present an IB Diploma (a minimum of 24 composite points) will receive four Clark units (one semester). Students who do not complete the full IB Diploma will receive one Clark unit for each higher level examination with a score of 5 or better up to a maximum of four Clark units (one semester).

3. Students transferring to Clark from another institution may transfer in no more than 16 units of course credit. Students who begin their course work at Clark may subsequently transfer up to 12 units of course credit from other schools.

4. Normally, no more than one year (eight course units) may be taken in study-abroad programs.

Academic Regulations

Full-time study is defined as a three- or four-unit program. Normally, undergraduates enroll in four courses per semester. Students should consult their faculty advisers, or in some cases, the Academic Advising Center or major departments when questions about course or program selections arise. With approval from the College Board, juniors and seniors with a minimum GPA of 3.0 in their prior semester, or with a minimum cumulative GPA of 3.0, may enroll in a fifth course.

While first-year students and sophomores may choose any course designated by a department as open to them, 200-level courses are normally designed for juniors and seniors. Juniors and seniors may elect any 100- or 200-level course, provided they have met all required prerequisites and have the permission of the faculty member, if necessary.

Undergraduates may be admitted to 300-level graduate courses with the approval of the instructor.

Grades

Grades are an indication of individual performance in each course taken at the University. At Clark, four grading options are currently in use:

1. Graded courses: This option uses the symbols A, B, C, D, and F with the modifying symbols "+" and "–" for A, B, and C. The lowest passing grade is D.

The faculty has approved the following qualitative description of grades:

A indicates work of distinction, of exceptionally high quality
B indicates good work, but not of distinction
C indicates average work and satisfaction of University degree requirements
D indicates marginal work
F indicates unacceptable work

2. The Pass/No Record Option: This option uses the symbols P and NR. P indicates work at a level of C– or better. Neither the P grade nor its credit is included in the calculation of the grade-point average. Performance below a C– results in a No Record (NR) grade. NRs do not appear on students' transcripts. Students must choose this grade option during the add/drop period. There is no limit to the number of NR grades that a student may receive. However, NR grades do not carry credit and are not counted toward graduation or University requirements.

3. The Credit/No Credit Option: This grading option, assigned by the University to a course, uses the symbols CR/NC. CR indicates work at a level of C– or better. The NC is treated like an F.

Grade-point averages are calculated by the University to determine academic good standing, semester academic honors, Latin honors at graduation and eligibility for various honor societies. The grade-point average is calculated as the average of grades earned in all Clark University graded courses. Neither external credit nor ungraded Clark University courses are included in this calculation.

Pass/No Record Option

The availability of the pass/no record option is designed to offer students the opportunity to take a course, usually unrelated to their major, without risking a negative impact on their GPA.

All students should bear in mind that the majority of graduate and professional schools have expressed a preference for graded transcripts and encourage applicants to have graded courses. Preprofessional students and those for whom graduate school is a goal should exercise caution in selecting the pass/no record option. Students who are interested in attaining honors, such as Phi Beta Kappa, Dean's List and Latin honors at graduation, also should exercise use of the option cautiously.

Noncredit Audit Status

With the permission of the instructor, full-time degree students are eligible to audit one course per semester. There is no additional charge for this privilege. Part-time matriculated students also may register as auditors with the permission of the instructor and the payment of a per course fee. In limited or sectioned courses, regularly enrolled Clark students are given preference for available openings.

Matriculated students who successfully complete audited courses (this determination is made by the instructor) also will have the audited courses posted on their permanent records.

Withdrawal From Courses

A student may withdraw from a course at any time during the add/drop period without having a W recorded on his/her transcript. Students may withdraw from a class up until the end of the tenth week of classes, but any withdrawal after the add/drop period will result in a W being recorded on the transcript. Students compelled to withdraw from a course due to exceptional circumstances (e.g., serious illness) may petition the College Board for the Withdrawal with Reason (WR) transcript notation for the course.

Incompletes

A record of incomplete may be permitted by approval of the College Board or dean of the college only when sickness or some other unavoidable circumstance prevents completion of the course. Individual instructors may not assign incompletes without the approval of the College Board or dean of the college. A record of incomplete incurred in the fall semester must be made up no later than the following April 1; if incurred in the spring semester, it must be made up no later than the following Oct. 1. If a course is not completed within the specified time, the record of incomplete is changed to F.

Registration

All students are expected to register in November for the spring semester and again in April for the following fall semester. Registrations must be finalized by the end of each semester's add/drop period. Notification of the dates for registration is given, and failure to register within the announced period results in a late fee.

Examinations

Final examinations are given at the end of most courses. Approximately one week is set aside for each examination period, and an attempt is made to distribute examinations for individual students evenly throughout this period. Absence from a final examination, except for the most compelling reasons, may result in a failure for the course.

Comprehensive final exams are not to be given (or due) during the last week of class, nor during the scheduled reading period. Other examinations and tests may be given at any time during the course at the discretion of the instructor.

Class Attendance

There is no university-wide class attendance policy. However, many individual instructors do set attendance requirements for their courses.

Student Absence Due to Religious Beliefs

According to Massachusetts state law, any student who is unable, because of his or her religious beliefs, to attend classes or to participate in any examination, study or work requirement on a particular day, will be excused from that requirement. He/she will have an opportunity to make up any examination, study or work requirement missed because of such absence, provided the makeup examination or work does not create an unreasonable burden on the University. No fees will be charged by the University for making such opportunities available. No adverse or prejudicial effects will result to any students availing themselves of these provisions.

Course Changes

Students may add and drop courses during each semester's add/drop period. Thereafter, a student may enter a course only with the permission of the instructor and the College Board or the dean of the college.

Classification of Students

All students who have not been required to withdraw at the end of the academic year will be promoted if they have satisfactorily completed the following number of units:

To the sophomore class	6 units
To the junior class	14 units
To the senior class	22 units

Partial Programs

In special circumstances, students may be permitted by the dean of students to register for a semester program of fewer than three courses. These students are designated as part-time students.

Guest and Special Students

Guest students from other colleges and universities who want to study at Clark for one or two semesters, and special students who want to take only a few courses without enrolling as degree candidates, may seek approval to do so. Students who wish to enroll as guest students should contact the Admissions Office. Those interested in special student status should contact the Office of Student Records.

Academic Standing

Academic standing is reviewed each semester and is based upon performance during the previous semester. All students are required to pass at least two courses each semester and to maintain a 2.0 grade-point average. In order to remain in good academic standing, first-year students must complete at least five courses with a minimum 2.0 grade-point average by the conclusion of their first year. Sophomores, juniors and seniors must complete at least six courses with a minimum 2.0 grade-point average for the year. In addition, students may earn no more than four D grades for credit towards graduation. Students who fail to meet these requirements will be placed on academic probation for the next semester for which they enroll at the institution.

Students who do not maintain good academic standing may be placed on academic probation or may be dismissed by the College Board or the dean of the college. The progress of students, who are placed on academic probation, is reviewed by the board at the end of the semester on probation.

Students on probation are expected to complete four courses with a 2.0 average or face a required withdrawal for the subsequent semester. A second required withdrawal requires the student to complete two courses at another institution within one semester with grades of C or higher, prior to their application for readmission to Clark. A third required withdrawal is final.

Academic Integrity

Academic integrity is a basic value for all higher learning. Simply expressed, it requires that work presented must be wholly one's own and unique to that course. All direct quotations must be identified by source. Academic integrity can be violated in many ways: for example, by submitting someone else's paper as one's own; cheating on an exam; submitting one paper to more than one class; copying a computer program; altering data in an experiment; or quoting published material without proper citation of references or sources. Attempts to alter an official academic record will also be treated as violations of academic integrity.

To ensure academic integrity and safeguard students' rights, all suspected violations of academic integrity are reported to the College Board. Such reports must be carefully documented, and students accused of the infraction are notified of the charge. In the case of proven academic dishonesty, the student will receive a sanction, which may range from an F in the assignment or course to suspension or expulsion from the University.

Leaves of Absence

A student who is in good standing may apply to the dean of students for a leave of absence, after which he/she may return to the University without formal application for readmission.

No Shows

Students who fail to enroll without taking a formal leave of absence will be administratively withdrawn from the institution. To be considered for readmission after this dismissal, students must apply to the dean of students.

Departmental Honors

Students may be admitted to a program leading to a bachelor's degree with honors in a particular major at the beginning of the junior year or, in some cases, at the beginning of the senior year. In most cases, each student will work with a faculty member who serves as his or her honors adviser and assists with planning the honors research and thesis during the student's junior and senior years. The program may include a maximum of six courses in which the student works under the adviser's supervision. In some cases, students must pass a comprehensive examination given by the department in the senior year.

Students should check with the major department to obtain guidelines for the specific requirements for honors before the end of the sophomore year (although in some departments, applications for honors may be made in the second half of the junior year).

Admission to an honors program does not relieve students of any of the standard major requirements. A student's candidacy for honors will be terminated at the end of any term in which he/she has not maintained a standard of work satisfactory to the department. If candidacy is terminated for any reason, the amount of course credit to be allowed for honors courses will be determined by the College Board.

The department may recommend that a student graduate with honors, high honors, or highest honors. That recommendation is made to the dean of the college at the completion of the honors program. Consult individual departments for details concerning acceptance into their honors programs.

University Honors

Each semester, the dean of the college publishes a list of students who have distinguished themselves by outstanding academic performance in the preceding semester. Honors are awarded to the top students in each class based on semester grade averages.

Upon graduation, Latin honors are awarded at three levels: cum laude, magna cum laude, and summa cum laude. Latin honors are based on the following cumulative grade-point averages: summa cum laude, 3.80 and higher; magna cum laude, 3.60-3.79; and cum laude, 3.40-3.59. Also, to be eligible for Latin honors, students must have completed at least 75 percent of their Clark courses with a letter grade.

Honor societies at Clark include the Society of Phi Beta Kappa, founded at the College of William and Mary in 1776 and dedicated to the recognition and encouragement of outstanding scholarly achievement in liberal studies. The Clark Chapter, Lambda of Massachusetts, was established in 1953. Gryphon and Pleiades is the senior honor society at Clark. Its 12 members include students who have outstanding records of academic achievements and leadership in campus extracurricular activities. The Fiat Lux Honor Society was created in 1988 as a student honor and service society recognizing combined qualities of scholarship and citizenship among Clark juniors and seniors. Qualifications for selection include a minimum 3.3 grade-point average and significant community service.

JOBS
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Facilities and Student Resources

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Housing

Clark University provides housing for approximately 1,500 undergraduate students in eight residence halls and 14 houses. All first- and second-year students are required to live in University housing unless they are commuting from home. Residential Life and Housing staff is available to assist students with a variety of personal and academic concerns. The staff strives to create a living-and-learning environment through social, recreational and educational programs. Dodd Hall is designated as an all-women residence hall. The remaining eight halls are co-educational. Currently, all residence halls are smoke free. There are two residence halls designated exclusively for first-year students and one residence hall designated for upper-class students. Special-interest housing opportunities include a substance-free house (called Wellness House), quiet house, and year-round house. Additionally, those first-year students who live a substance-free life and want to live in a residence hall may request a substance-free roommate.

New student assignments are mailed by mid-July. Each year, returning students participate in the room selection process in April to select their rooms. Approximately, one-third of Clark students commute from home or live in private apartments in the immediate neighborhood. A limited listing of available apartments is compiled by and available at the Office of Residential Life and Housing.

Dining Services

Bon Appetit Management Company is the University's food-service provider. It operates three dining facilities: Higgins Bistro and Café Bon Appetit, both located in the Higgins University Center, and the Moonlight Café located in Dana Commons.

Café Bon Appetit is an all-you-can-eat facility serving breakfast, lunch and dinner. Daily menu items feature delicatessen, grilled and charbroiled food to order, fresh pasta, international fare, vegan and vegetarian options, and a full salad bar with soups and bread. Higgins Bistro is an a-la-carte restaurant with continuous service throughout the day. The menu includes fresh deli sandwiches, salads, grilled and fried items. Both facilities serve faculty, staff and students through the traditional meal plan, Clark cash card, or cash.

Moonlight Café, located on the second floor of Dana Commons, features personal pizzas, appetizers, grab-and-go sandwiches, salads and beverages.

Health Services

The Clark University Health Service is a primary-care outpatient clinic that provides on-campus health care to full-time matriculated undergraduate students. It is staffed by physicians, nurse practitioners, registered nurses and support staff. The clinic, located at 501 Park Avenue, is open Monday through Friday 9 a.m. to 5 p.m. There is always a physician on call when Health Service is closed.

Students may make an appointment at Health Service with a clinician for diagnosis, treatment, follow-up, or counseling regarding health problems. Gynecological and contraceptive services are available.

Massachusetts law requires all full- and part-time students to enroll in a qualifying student health-insurance plan offered by the University or in another health-insurance plan with comparable coverage. Failure to submit proof of comparable coverage will result in a student being automatically enrolled in the Clark plan and charged accordingly. In compliance with state law, students may not register for classes until they are enrolled in an insurance plan.

Dean of Students Office

The Dean of Students Office is concerned with the well-being of students living and learning in a community of scholars and works to maximize the quality of student life at Clark. The staff coordinates services related to housing, residential life, multicultural-student services, international-student services, new-student orientation, wellness, health services, student activities, personal counseling and judicial affairs.

The deans are available to meet with students on the wide variety of issues that they encounter during their time at Clark. The Dean of Students Office publishes a student handbook (Synergy), which outlines student support services and the Code of Student Conduct.

Career Services

The Career Services Office provides services and programs to assist students in making informed decisions regarding their career choices. Our professional staff offers assistance in career and graduate-school planning and in the internship and full-time job search. The following services and resources are available:

Career Advising—Staff is available to meet with students who want to discuss their choice of major and/or career and graduate school plans. Career advising helps students clarify their goals, preferences, skills and interests.

Career Planning Events—Workshops are conducted each semester on topics such as resume writing and interviewing skills as well as a variety of panel presentations on specific career fields. Job fairs and graduate-school events are also coordinated to provide students with the opportunity to network.

Career Resources—The Career Services Library contains information on career fields, companies, internships, jobs and graduate study. Information on job-search techniques, as well as directories, annual reports and literature about specific employers is available.

Clark Career Exploration Program—CCEP is a four-year comprehensive program where students discover their interests and skills, explore a variety of possible career paths and their requirements, and develop plans for internships, full-time employment, graduate and professional school. Through this program, students are encouraged to attend career workshops and create portfolios that creatively market their liberal-arts education to employers and/or graduate schools.

Internship Program—Career Services encourages students to participate in academic experiences in the field, allowing them to compare academic theory to actual practice while exploring various career options. Students have earned academic credit for working with many public, private and nonprofit organizations located throughout the county.

Letters of Reference Files—This service enables students to maintain letters of recommendation in our office for prospective employers, graduate schools or professional programs.

Prelaw Advising—The Prelaw Advising Program provides services to undergraduates considering careers in law and facilitates the entrance of qualified students into law school. Located in the Career Services Office on 122 Woodland St., the Prelaw Advising Program sponsors workshops, lectures and meetings, and provides informational materials for students. Watch appropriate bulletin boards and publications for announcements of important meetings and events. Students interested in pursuing law-school admission should contact Career Services or Professor Mark Miller in the Government and International Relations Department.

Recruiting Program—Clark students can connect with employers through on-campus company presentations, showcases, resume referrals and campus interviews. Career Services currently utilizes eRecruiting, a premiere Web-based recruiting system. All students are encouraged to create their profiles and register to begin their career exploration.

The Career Services Office is located on 122 Woodland Street and is open Monday through Friday from 8:30 a.m. to 5 p.m. For more information, call 508-793-7258; e-mail careers@clarku.edu; or visit the Web site at www.clarku.edu/offices/career.

Community Engagement

The Community Engagement and Volunteering (CEV) Center was established on the Clark campus to provide a centralized location where students and faculty can receive assistance in finding local volunteer opportunities or community-based service-learning projects.

By becoming engaged in a meaningful community-service activity, students can make a positive difference in the life of others, gain leadership skills and learn the value of civic responsibility.

The CEV Center serves as a clearinghouse of community agency information and maintains an alphabetical listing of agencies in the Worcester area that are in need of volunteers, as well as descriptions of service opportunities. In addition, the Center supports faculty with service-learning curriculum development and site placement assistance. CEV staff assists students and faculty in finding a community-service project of interest to them and benefit to the Worcester community. The Center coordinates the annual Volunteer Fair, the Food For Thought dialogue series, faculty-development workshops on service learning and other on-campus community-service events.

The Community Engagement and Volunteering Center is located on the first floor of Corner House, corner of Woodland Street and Charlotte Street, and is open from 9 a.m. to 5 p.m. Monday through Friday. For more information, contact Adriane van Gils, CEV Program Manager, at (508) 421-3704 or the Community Partnership Facilitator/AmeriCorps*VISTA at (508) 421-3785, or view our Web site at www.clarku.edu/local/communityengagement.

Campus Security

The Clark University campus is served by a 12-member police force duly appointed by the Commonwealth of Massachusetts department of State Police. University Police are armed and have full arrest and policing powers.

Police take a proactive approach to campus security, offering educational programs on how to take precautions appropriate to an urban setting to students, faculty and staff. University Police and Physical Plant maintain a network of 61 indoor and outdoor emergency telephones to ensure a quick response to security concerns. An escort service is available for students from 5 p.m. to 4 a.m. during the academic year within a quarter mile of the Clark campus. Clark University, as mandated by federal law, reports annually on the security of its campus. A copy of the Campus Security Report is available at Admissions House, University Police and on Clark's Web site.

Facilities and Resources

Campus Libraries

The Robert Hutchings Goddard Library, named for the Clark physicist who invented the rocket technology that made space travel possible, is the academic heart of the University and an architectural landmark. Goddard is both a traditional and an electronic library with collections and services that are a combination of time-tested and brand new. The collections include more than 600,00 volumes, 293,744 monographs and subscriptions to 1,500 periodical titles. The library provides full Internet access and 70 end-user subject-specific databases. As a member of the Colleges of Worcester Consortium, Clark offers students the use of eight academic consortium libraries and a combined local collection of more than 3.5 million volumes.

Goddard Library also offers a viewing area for videocassettes; a listening area for compact discs, records and tapes; a language lab; computers; and terminals linked to the campus' computing network. Through the University Computing Center, the Library's menu of electronic information sources including the Public Online Catalog is available 24 hours a day.

The Guy Burnham Map and Aerial Photography Library, founded in 1921, is an active cartographic information center. The collection, global in scope, contains over 200,000 maps and 7,500 aerial photographs, as well as atlases, journals, globes, map reference materials and tourist information. A depository agreement with the U.S. Government Printing Office insures the availability of a full array of U.S. government maps. The library is located on the lower level of the Geography Building.

The Carlson Science Library, a branch of the Goddard Library, serves the disciplines of biology, chemistry and physics. Located on the top floor of the Sackler Sciences Center, it houses selected science journals and a research collection of recent monographs. Full Internet access, as well as subject-specific databases, are provided.

Information Technology

At Clark, information technology permeates all aspects of campus life. E-mail and Web systems provide online access to information, services, communication and collaboration. The high-speed campus data network links all campus buildings, including residence halls and the Internet. Wireless networking supports laptop mobility around campus. Classrooms are networked and multimedia capable. Student computer labs provide access to specialized programs used in courses. Videoconferencing connects the campus to other locations, universities and laboratories. Walk-up kiosks provide quick network access as individuals go about campus.

Clark students, faculty and staff routinely utilize this computing and networking environment in day-to-day activities. Students register for classes and access their records through "Web for Students." Students, faculty and staff universally use e-mail for personal and University communications. All also use the Intranet, Clark Commons, to access comprehensive campus information, services, directories and forums. Faculty and students use the Web system, BlackBoard, to access course materials including syllabi, readings, images, recordings, videos and online discussions. Faculty and students use the New Media Lab to produce the multimedia content for BlackBoard and other electronic publications. Everyone may publish a Web page. Campus events are webcasted and archived for playback on demand. Student organizations offer discussions and "straw polls"on the Intranet forum, where any individual may also launch a discussion.

Automated systems support the entire range of University administration and operations. Campus service departments offer complete information and services on the Clark Web site, and academic departments publish full descriptions of majors and programs along with faculty profiles.

All faculty and staff are provided with networked computers. Most students bring a computer to campus. Student computer labs and kiosks are also provided throughout the campus, supporting the curriculum and complimenting students' personal ownership. Desktops or laptops; Windows, Macintosh or Linux; wired and wireless: all are supported. The university provides information and assistance to help students, faculty and staff acquire the best computers and software at the best prices. Consulting, troubleshooting and training are also provided, including evenings and weekends.

These systems and services, for which students are charged no extra fees, are provided to the Clark community by Information Technology Services and the Office of the Vice President for Information Technology.

Science Facilities

The Arthur M. Sackler Sciences Center links the biology, chemistry and physics departments and houses facilities for both teaching and research. Interdisciplinary programs, such as biochemistry and molecular biology, also are housed in Sackler. State-of-the-art scientific equipment, such as an electron spin resonance (ESR) spectrometer and high-field nuclear magnetic resonance (NMR) spectrometers, serve Clark students and researchers, as well as others in central Massachusetts. A centralized science library and computer laboratories also are housed here.

Construction of a new biological sciences building is underway at Clark. The project includes the construction of a 50,000 square-foot building for the biological sciences and the renovation of the 32,000 square foot biophysics building, the second-oldest building on campus. The renovated building will house physics, mathematics and computer science. The adjacent Sackler Sciences Center will house chemistry.

Slated for completion in December of 2004, the new and renovated facilities are designed to enhance the sense of community and collaboration among the sciences, with highly developed teaching and research laboratories, laboratory equipment, and faculty and graduate-student offices. The facilities also support active-learning opportunities for undergraduates—one hallmark of a Clark education.

Visual and Performing Arts Facilities

The Traina Center for the Arts, which opened in August of 2002, is a state-of-the-art facility for the visual and performing arts. The complex consists of a completely remodeled late 19th-century brick school building of Richardsonian design with a newly built hall for lectures, recitals and screenings. Studios for painting, drawing and graphic design, together with a print-making studio, photography darkroom, exhibition gallery, visual resource library, multimedia center and high-tech classrooms, create an integrated environment for the study, creation, display and performance of studio art, art history, music, theater arts and film.

The Little Center Building and Theater is devoted to the creation of theatrical performances and includes a black-box theater, experimental theater, costume shop, design workshop, practice studio and classroom. The building also includes a fully equipped sculpture studio.

Estabrook Hall contains additional facilities for the arts, including music classrooms, practice rooms, the George F. and Sybil H. Fuller Foundation Center for Music, and senior studios for advanced studio-art students.

Athletic Facilities

The Kneller Athletic Center includes a gymnasium with three full-size courts for basketball and volleyball as well as space for indoor badminton, field hockey, running, lacrosse, soccer and softball; a six-lane 25-yard swimming pool with one- and three-meter diving boards; four racquetball courts and two squash courts; two weight rooms; a training room with facilities for rehabilitation; a dance room; plus locker rooms, offices and conference rooms.

The 4,300 square-foot James and Ada Bickman Fitness Center, an addition to the Kneller Athletic Center opened in the fall of 1995, provides students with a cardiovascular area as well as a strength and free-weight area.

Students play outdoor sports at Russ Granger Field. Recently renovated, the area consists of six PlexiPave-surfaced tennis courts and two lighted fields for varsity field hockey, baseball, lacrosse and soccer. The fields are also used for intramural and recreational sports. Included in the renovations was the construction of the 29,850 square-foot Dolan Field House, which provides indoor practice space, a training room and locker rooms for visiting and home teams. O'Brien Field is the home to the varsity softball team, and the cross-country team practices in the many city and state parks near the University. Clark's rowing team practices and competes on Lake Quinsigamond, a short ride from campus. The Worcester-area colleges share a boathouse on the lake.

Division III Intercollegiate Athletics

Clark's 17 intercollegiate varsity teams compete as a member of the National Collegiate Athletic Association (NCAA, Division III) and the Eastern College Athletic Conference (ECAC). Locally, Clark competes in the New England Women's and Men's Athletic Conference, which includes Babson College, Massachusetts Institute of Technology, Mount Holyoke College, Smith College, Springfield College, United States Coast Guard Academy, Wellesley College, Wheaton College and WPI.

Men's varsity sports include baseball, basketball, crew, cross country, lacrosse, soccer, swimming and diving, and tennis. The women's varsity sports include basketball, crew, cross country, field hockey, soccer, softball, swimming and diving, tennis, and volleyball.

Graduate Program and Research Institutes

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Founded in 1887 as the first all-graduate school in America, Clark has continued to offer outstanding master's and doctoral degree programs in the context of an intimate university. Over the years, Clark's graduate school has been at the center of major research breakthroughs in disciplines as diverse as physics, geography and psychology.

Clark offers graduate programs leading to doctoral and master's degrees. Admission to Clark's graduate programs is open to holders of the bachelor's degree or its equivalent, and is determined on a competitive basis. All programs are administered by the Graduate Board. Completion of a master's degree program generally requires one or two years of study, and completion of the Ph.D. requires at least four years of study, although requirements vary across departments.

Doctor of philosophy degrees are offered in biology, the biomedical sciences, chemistry, economics, geography, history, physics and psychology. Master of arts degrees are offered in biology, chemistry, community planning and development, education, English, environmental science and policy, geography, geographical information science, history, international development and social change, physics, psychology, and teaching. The master of business administration and master of science in finance are offered by the Graduate School of Management. The College of Professional and Continuing Education offers the master of public administration, master of science in professional communication, master of science in information technology, and master of arts in liberal arts.

Departments that do not, at present, accept candidates for graduate degrees may offer courses suitable for inclusion in a program of graduate study. Programs crossing departmental lines are also available through the University's individually designed Ph.D. program.

There is a wide variety of financial support available for incoming graduate students. Most departments offer teaching assistantships, fellowships and research assistantships. Often these come with a stipend as well as tuition grants. Some specific examples of fellowship awards are listed at the end of this section.

Because of the close interaction between the graduate and undergraduate colleges, Clark is able to offer accelerated combined bachelor's/master's degree programs.

Inquiries and Admission to Graduate School Programs

Inquiries from both U.S. and international students concerning specific programs of graduate and postdoctoral work should be addressed to the chair of the department or program concerned. Visit our Web site at www.clarku.edu for more information.

Admission to the graduate school may be granted only by the dean of graduate studies and research, acting for the Graduate Board on the recommendation of a department or program of the University. Formal notification is by official letter from the graduate dean. Applicants should communicate with the appropriate department or program head. The applicant will be provided with an application form, which, accompanied by a $50 application fee, should be returned to the department or program. In addition, the applicant should arrange to forward an official transcript of all undergraduate and any subsequent academic work as well as three letters of recommendation from persons who are competent to judge qualifications for graduate study.

Department or program heads may request the submission of additional material, and most require a record of attainment in the Graduate Record Examination given by the Educational Testing Service, Princeton, N.J. All applicants are urged to submit their scores on the Graduate Record Examination verbal, quantitative and advanced tests. Applicants to the Graduate School of Management programs are required to take GMAT rather than GRE examinations.

In addition to an application and $50 fee, foreign students should provide a certified English translation of official transcripts, evidence of English proficiency (TOEFL), at least three letters of recommendation, and a statement concerning their financial resources or agency support.

Application deadlines vary by department. Please contact the department or program of interest for the date.

Admission to the Graduate School is valid for a specified time only and lapses after that period. If a student is admitted while still a candidate for a degree from another institution, an updated transcript noting the conferring of that degree must be sent directly to the department or program of interest.

Part-time graduate study is possible in some departments. Admission as a special graduate student (nondegree candidate) is a simple enrollment process handled through the Office of Student Records. The grading system for these students is: A-F (with "+" and "–") or Pass/Fail.

Master of Arts

Master of arts degrees are offered in the fields of biology, chemistry, community planning and development, education, English, environmental science and policy, geographic information sciences for development and environment, geography, history, international development and social change, physics, psychology, and teaching.

Residency: An academic year (generally eight semester courses) of study in residence is a minimum requirement for a master's degree. Individual departments or programs may require longer periods of residency.

Foreign Language: Language or other special requirements are included in the department listings in this catalog.

Course and Examination Requirements: Each student must complete at least eight semester courses in a program approved by the department. One course may be a research course devoted to the preparation of the thesis. Credit for a maximum of two courses at another institution may be approved by the dean of graduate studies and research upon recommendation of the department.

Thesis: The thesis is written on a topic in the field of the student's special interest under the supervision of a member of the department and in a style, length and format that is appropriate to the problem being researched. Regulations for submission of theses are available online at www.clarku.edu/graduate.

Graduation Fee: The fee for the master of arts degree is $100. This covers the cost of the diploma and binding of the library copy. It is payable when the thesis is deposited with the format adviser. Students who do not write a thesis, including those receiving the degree on the alternative program, must pay this fee no later than the date on which theses are due to the University format adviser.

Alternative Program: A candidate for the degree of master of arts may be recommended for the degree without a thesis after passing a preliminary doctoral examination.

Nonresident Students: Students who have completed all their in-class course work and are finishing their degree requirements off campus must continue to register each semester until graduation as nonresident students. The nonresident student status fee is $200 each semester for the first three years and $400 each subsequent semester.

Postgraduate Programs in COPACE

Through the College of Professional and Continuing Education (COPACE), Clark offers the master of arts in liberal arts (M.A.L.A.), master of public administration (M.P.A.), master of science in professional communication (M.S.P.C.) and master of science in information technology (M.S.I.T.).

The M.A.L.A. program is designed for students wishing to pursue liberal-arts education at the graduate level. The M.P.A. program is designed to strengthen and advance the managerial and analytical skills of mid-career managers and executives in public organizations and nonprofit institutions. The M.S.P.C. is a comprehensive, practical program designed for mid-career professionals. The M.S.I.T. is designed to prepare professionals to take a holistic approach; think critically about enterprise objectives; learn the strengths and weaknesses of each technology and how they interface; and envision the totality of e-based systems. For further information, contact the College of Professional and Continuing Education.

Certificate of Advanced Graduate Study (CAGS)

Through COPACE, Clark offers a Certificate of Advanced Graduate Study (CAGS) in Interdisciplinary Studies, designed for teachers, administrators and other professionals. The program is open to those already holding a master's degree. Although increased specialization in a student's particular area is possible through the chosen concentration track, the Clark Interdisciplinary Studies CAGS, unlike traditional CAGS offered elsewhere, attempts to foster breadth beyond a discipline. Courses are chosen from several disciplines; the student's focus is interdisciplinary, incorporating and transcending established domains of study.

Master of Business Administration/ Master of Science in Finance

The accredited Clark University Graduate School of Management offers programs leading to the master of business administration (M.B.A.) and the master of science in finance (M.S.F.).

Doctoral Programs

Doctor of Philosophy

Doctor of philosophy degrees are offered in biology, biomedical sciences, chemistry, economics, geography, history, physics and psychology. The University also offers an individually designed Ph.D. program for programs crossing departmental lines. Doctoral students in the biomedical sciences and in psychology may also enroll in courses given cooperatively with University of Massachusetts Medical School, Worcester Foundation for Biomedical Research, and Worcester Polytechnic Institute. Only well-qualified candidates with proven ability in their special fields of study will be encouraged to proceed to the degree of doctor of philosophy.

Residence: The minimum requirement is one year of full-time study (eight semester courses) beyond the M.A. or its equivalent in part-time work, in residence. If the master of arts has been earned at Clark, this requirement is in addition to the residence requirement for that degree.

Foreign Language: Each graduate department sets its own language or related requirements as the student's field of research may demand and must report such requirements in each case to the dean of graduate studies and research. If a language is required, either a testing service or on-campus tests are employed at the discretion of the department.

Preliminary Examination: Upon completion of preparation in the fields of study, a prospective candidate takes a preliminary examination set by the major department. This examination may be written or oral, or a combination of both. The chair of the department may invite other scholars from within or outside the University to participate in the examination.

Dissertation: A dissertation, which is expected to make an original contribution to a specialized field of knowledge, is required of each candidate. The dissertation, approved by the chief instructor or dissertation committee, is presented to the examining committee at the final oral examination. An abstract of the dissertation, not exceeding 350 words, is approved by the dissertation advisers. Four weeks before the degree is to be conferred, a presentation-quality copy of the dissertation, together with two official title pages, an academic history and an abstract must be delivered to the University format adviser. At the same time, one or more copies of the dissertation and of the abstract may be required by the major department. The title pages and academic history forms can be obtained online. The presentation-quality copy of the dissertation must be typed or computer printed as prescribed in the format guide located on the Graduate School Web site.

The dissertation and abstract become part of the permanent collection in the University library. A microfilm copy of each dissertation is made by Bell & Howell of Ann Arbor, Michigan, and is available for duplication on request to that company. The abstract is printed in Dissertation Abstracts.

Articles published in referred journals may be accepted in lieu of a dissertation with the approval of the department and the graduate dean.

Graduation/Diploma Fee: The fee for the doctor of philosophy degree is $150. It covers the cost of the diploma, hood, publication of the abstract in Dissertation Abstracts, and binding of the library copy of the dissertation. It is payable when the dissertation is deposited with the University format adviser.

Nonresident Students: Continuing students who are not registered for courses at Clark are required to register for and pay a nonresident fee of $200 per semester to maintain active status. If fees are unpaid, the student will be dropped from the degree program. (Fees double after three years.) For information on nonresident loan deferment status see "Graduate Tuition" section.

Doctor of Philosophy in Biomedical Sciences

The biomedical sciences Ph.D. program began in 1975 with the recognition that certain individuals without a standard academic background, but with previous research experience and an outstanding aptitude for independent research, may benefit from a relatively unstructured program leading to the Ph.D. degree. This is a cooperative program involving Clark University, University of Massachusetts Medical School, Worcester Foundation for Biomedical Research, and Worcester Polytechnic Institute. It utilizes the faculty, facilities and varied research interests in the biomedically related sciences in the Worcester area. The primary criteria for admission are research ability and potential. The evaluation of applicants is based largely on evidence of their previously performed research. Award of the Ph.D. requires passing of a preliminary examination and presentation and defense of a research thesis. Competence in the major field in preparation for the preliminary examination can be achieved through independent study, directed study or formal courses. The Ph.D. degree may be awarded by either Clark University or Worcester Polytechnic Institute, although dissertation research may be done at any of the participating institutions under the sponsorship of a faculty member from that institution. Areas for dissertation research reflect the varied research programs of faculty from the participating institutions. These include, but are not limited to: cellular and molecular biology; cell senescence; metabolism, endocrinology and immunology; pharmacology and experimental pathology; reproductive biology, physiology, neurobiology and behavioral science; biological engineering, related to nitrogen fixation and development of new symbiotic systems with blue-green algae, biomass and bioenergy (silviculture and fermentation technologies).

Admission: The primary criterion used in selection of students for this program is the demonstrated capacity of the applicant to do independent research. In addition to the application form, applicants submit official transcripts of undergraduate and graduate work, Graduate Record Examination (GRE) scores, three letters of reference and evidence of outstanding research ability (e.g., publications, abstracts, etc.). More complete information may be obtained from the program director.

Applications and all supporting documents should be submitted to Dr. Joseph Bagshaw, Department of Biology and Biotechnology, Worcester Polytechnic Institute, 100 Institute Road, Worcester, MA 01609.

Graduate Grading Policies

The grades of A and B (with "+" and "–") are acceptable for graduate credit; anything lower than a B– is not acceptable. A Pass/Fail grading option is possible, where P (pass) signifies that the student has performed at a B– or above. Incompletes are awarded at the discretion of the instructor for a period not exceeding one year.

Graduate Housing

A limited number of on-campus housing spaces are available through the Office of Housing and Residential Programs. Incoming students have priority for this housing. Further details may be obtained from the Office of Housing and Residential Programs or from academic departments.

Off-campus rooms and apartments for both men and women are available in the immediate area of the University. A limited listing of current housing opportunities is compiled by the Office of Housing and Residential

Programs. Students without prior arrangement for University-owned housing are urged to arrive before registration to seek suitable housing in the area.

For information on meal plans, health insurance and health services, please refer to the section on Facilities and Student Resources.

Graduate Tuition and other Charges Academic 2004-2005

Full-time Graduate Students:
Tuition: $28,000 per academic year (or $14,000 per semester)

In departments that define a full load as four courses per semester, the per-course charge is $3,500. The per-course charge varies in some departments according to their specific definition of a full program. Students should contact their department chairs to find out which scale applies.

Part-time Graduate Students:
Tuition is charged on a per-course basis according to the scale used in the student's department (generally $3,500 per course).

Special Graduate Students (nondegree candidates):
Tuition: $3,500 per course

Tuition and fees differ in the following programs:

- Master of Business Administration
- Master of Science in Finance (Contact the Graduate School of Management for further details.)
- Master of Arts in Liberal Arts
- Master of Public Administration
- Master of Science in Professional Communication
- Master of Science in Information Technology (Contact the College of Professional and Continuing Education for further details.)
- Master of Arts in Teaching
- Master of Arts in Urban Education and Teacher Research

Other Fees

Graduation Fee—payable at the time the thesis or dissertation is deposited with the Office of the Graduate School.

Master's degrees	$100
Doctoral degrees	$150

Students who do not write a thesis or dissertation, including those receiving the degree through an alternative program, must pay this fee no later than the date on which theses are due to the University format adviser (generally, April 1).

Nonresident Fee	$400

Payable Aug. 1 and Dec. 1: $200 per semester. All degree candidates who are not formally enrolled in course work must pay the nonresident fee each semester until the final copy of the thesis or dissertation is approved by the University format adviser. If these fees are not paid by the close of the fiscal year, the student will be dropped from the program. (Fees double after three years.)

Loan Deferment

Only students enrolled on at least a half-time basis are eligible for student deferment status on college loans. Nonresident graduate students on a half-time basis are limited to two years of student deferment status.

Graduate Scholarships, Fellowships and Assistantships

Graduate fellowships and scholarships are provided for well-qualified students by the University from endowed funds and from other sources. Financial aid to graduate students also is available in the form of grants from a number of special funds and, in some departments, from sponsored research grants. A limited amount of part-time employment is available in the various offices and departments of the University. Students who receive awards must obtain permission from the department before accepting employment. Application for a scholarship or fellowship to begin in September should be made before Feb. 15 to the chair of the department or director of the program in which the applicant expects to do major work. Late applications, after endorsement by the department, go to the dean of graduate studies and research for final approval.

Research Fellowships

These fellowships may be awarded to graduate students who have fulfilled their residence requirements and who are pursuing a full-time doctoral program on campus.

Teaching Assistantships

Teaching assistants are assigned a variety of duties according to the needs of the department. Responsibilities include conducting discussion sessions, supervising laboratory sections, holding tutorial sessions and grading papers and projects. Assistantships typically involve a commitment of approximately half time (an average of 17-1/2 hours a week). A tuition-remission scholarship or fellowship accompanies this award. Additional support up to a 12-month stipend is available in some departments.

Assistantships

Assistantships are available in several departments. Assistantships involve a variety of services, including research with appropriate stipends, and usually provide the student with experience that will be useful in later professional work.

Graduate Fellowship, Scholarship and Department Funds

Stipends for fellowships and scholarships are provided by endowed funds. For further information about these funds, contact the Graduate School Office.

Research Centers and Institutes

The George Perkins Marsh Institute was founded in 1991 to conduct collaborative, interdisciplinary research on human-environment relationships, especially the human dimensions of global environmental change. While not a teaching facility, the institute is dedicated to training a new generation of researchers and practitioners in interdisciplinary approaches to environmental assessment and management through their involvement in a variety of research projects. The institute is directed by Sam Ratick (geography, IDCE) and includes more than 60 researchers and students from the social sciences, natural sciences and humanities. It houses the Jeanne X. Kasperson Research Library and five research centers: The Center for Technology, Environment and Development; Clark Labs; The Center for Community Based Development; The Center for Risk and Security Studies; and The Greening of Industry Network.

- **The Kasperson Library** is a unique resource of the institute and offers one of the most extensive collections in North America of research materials on natural and technological hazards and environmental change. The library holds more than 25,000 volumes (including technical reports, government reports, scholarly books, court cases and regulatory proceedings), more than 750 journals and newsletters, and various special collections on international development, water resources and energy. The entire catalogued collection is machine retrievable.
- Founded in 1978, **The Center for Technology, Environment and Development** (CENTED) is internationally recognized as one of the oldest and most prominent centers for the study of natural and technological hazards in the United States. Interdisciplinary research has always been CENTED's forte, with current projects ranging from theoretical work on the human dimensions of global environmental change, hazard analysis, hazard taxonomies, vulnerability, environmental equity, comparative risk analysis, public participation, corporate risk management, and emergency planning. Other research emphases are the central role of urbanization, and the related

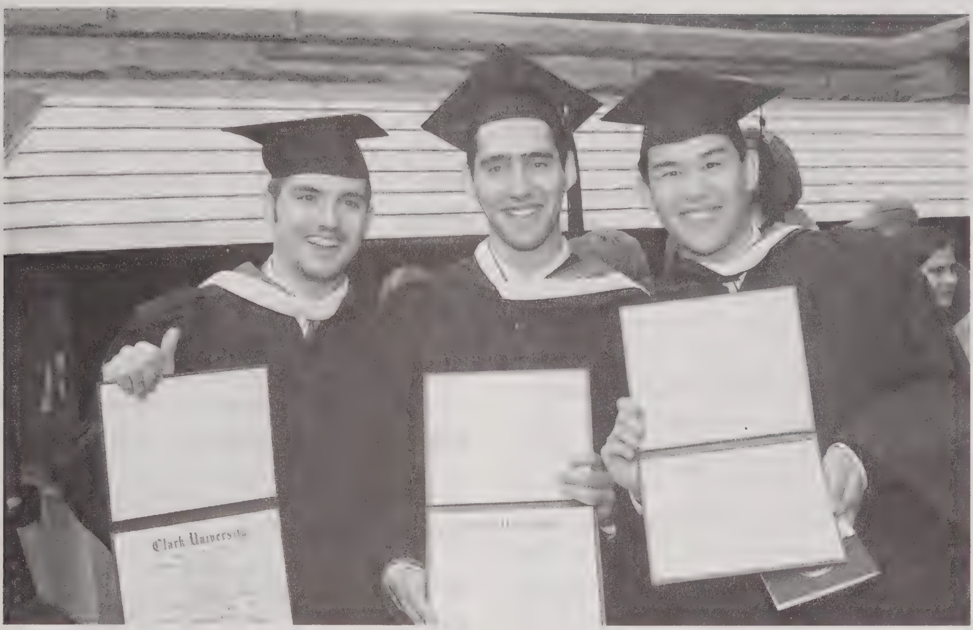
processes of economic and industrial change, in defining the impacts of human systems on the global environment and the interaction of land and water resource use systems with social and ecological change.

- **Clark Labs** is an international leader in the development of GIS software and analytical techniques for monitoring and modeling environmental processes. Clark Labs has pioneered both the theoretical advancement and application of GIS in areas such as decision support, change and time series analysis, digital image processing, uncertainty management and technology transfer. The IDRISI system, a Geographical Information System (GIS) software package that is in use at more than 35,000 sites in over 150 countries worldwide, is a manifestation of this union of theoretical and applied research and, as a result, provides an analytical depth that is unique to the industry. Clark Labs continues to develop and distribute IDRISI.
- **The Center for Community Based Development** (CCBD) is the research and training arm of the University's program for international development. Building on 30 years of development experience in Africa, Asia and Latin America, CCBD works in partnership with organizations and institutions worldwide to strengthen grassroots planning and action to build sustainable development. The center is unique in its ability to link community institutions, development planners, external agencies and policy makers. Its faculty has developed extensive, collaborative, working relationships with African institutions focusing on themes of resources management and institution building. CCBD has recently expanded work to Asia and Latin America and broadened its themes to include deep involvement in gender issues, local participation, community institutions and rural development.
- **The Center for Risk and Security** (CRS) at the George Perkins Marsh Institute conducts in-depth studies of homeland security issues using a risk-analysis perspective. The Center's broad range of security issues includes terrorism, disaster management, law and human rights, resource availability and public health. CRS's purpose is to adapt and develop risk and decision methods for analyzing these issues, conduct critical reviews of existing security plans, and assist private and governmental entities in planning and policy development. The domain of effort includes: 1) Expanding the scope of risk assessments to include security issues; 2) Developing methods to evaluate the trade-offs inherent in decisions about security; 3) Examining human-response aspects of planning and design of security programs; 4) Assuring that democratic values and institutions are utilized in security planning.
- **The Greening of Industry Network** is an international partnership, a research and policy institute without walls, focusing on issues of industry, environment and society, and dedicated to building a sustainable future. The network mobilizes a community of researchers to stimulate the emergence of a new strategic research area on the greening of industry. It creates a dialogue between this emerging research community and users of this research in business, labor, government, NGO's, public-interest groups and others, while providing an opportunity for all stakeholders with equal voice to develop research and policy agendas on issues of industry, sustainability and society.

The Jacob Hiatt Center for Urban Education was created in 1991 through a substantial endowment as a permanent partnership between Clark University and the Worcester Public Schools. The center brings together Clark faculty and public-school teachers and administrators to find innovative ways to address the challenges and possibilities of contemporary urban schools, especially in light of the diverse cultural backgrounds of the students they serve. The center fosters the work of an interdisciplinary group of scholars and teachers, focusing on issues of curriculum, language and learning. It supports teachers as researchers and educational leaders and has developed an innovative teacher-education program and a close relationship with five professional-development schools in the city including University Park Campus School, a model small school. The center seeks to set a new vision and standard for urban education nationwide. Dr. Thomas A. Del Prete directs the center.

The Heinz Werner Institute for Developmental Analysis is devoted to the application of developmental analysis to all psychological and psychocultural phenomena. The institute is named for Heinz Werner (1890-1965), one of the leading psychologists of the past half century, and the first chairman of the Board of Directors of the Institute of Human Development, which was founded at Clark in 1957. The Institute organizes conferences and other activities that link with the department's focus on human development.

The Institute for Economic Studies began its operation in January 1980. The institute is an integral part of the Economics Department, and its main objectives are to research significant economic issues, propose policy options to deal with them, and disseminate the results of the research and its policy recommendations to a broad audience. A scholar-in-residence program was instituted in 1984 to stimulate the exchange of ideas and dialogue between guest scholars and members of the institute and economics faculty. The institute director is Attiat F. Ott.



Major, Minors and Special Programs

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Bookmark it!
www.clarku.edu/catalog

For the most up-to-date academic catalog information, visit Clark's interactive online catalog at www.clarku.edu/catalog. This user-friendly online version of the academic catalog is updated before each registration with the latest information and descriptions of new courses. Plus, you can easily link from the online catalog to faculty bios, program Web pages and other expanded information.

Helpful Information

Undergraduate-Level Courses are numbered 001-299.

Graduate-Level Courses are numbered 300 and above.

Multiple-Level Courses: Clark offers many courses that are offered at different levels. The most common include undergraduate courses that have a part 1 and 2 (or more) and courses that are offered on both the undergraduate and graduate level. Multiple-level courses are listed together with their common course description: for example, FREN101/FREN102 Elementary French (register for FREN101 for part I and FREN102 for part II); and GEOG281/GEOG381 Tropical Ecology (register for GEOG281 for the undergraduate-level course and GEOG381 for the graduate-level course.)

Course Descriptions are listed in the course's home program/department. The following key lists Clark's course prefix codes (letter codes) and the corresponding home program/department that you should reference for the course description. For example, the course description for FREN101 Elementary French can be found in Foreign Languages and Literatures.

Course Code Prefixes and corresponding home program/department

ACCT	Management
ARTH	Art History and Criticism
ARTS	Studio Art
AS	Asian Studies
BCMB	Biochemistry and Molecular Biology
BINF	Bioinformatics
BIOL	Biology
CHEM	Chemistry
CHIN	Foreign Languages and Literatures
CLAS	Ancient Civilization
CMLT	Comparative Literature
COM	Management
COMM	Communication and Culture
CSCI	Computer Science
ECON	Economics
EDUC	Education
EN	Environmental Science and Policy, IDCE
ENG	English
FIN	Management
FREN	Foreign Languages and Literatures
GEOG	Geography
GERM	Foreign Languages and Literatures
GOVT	Government and International Relations
HCM	Management
HEBR	Foreign Languages and Literatures
HIST	History
ID	International Development and Social Change, IDCE
IDCE	International Development, Community and Environment (IDCE)
IDND	Interdepartment; No department
JAPN	Foreign Languages and Literatures
JS	Jewish Studies
LAS	Law and Society
LAT	Foreign Languages and Literatures
MKT	Management
MATH	Mathematics
MGMT	Management
MIS	Management
MUSC	Music
OM	Management
PHIL	Philosophy
PHYS	Physics
PSTD	Peace Studies
PSYC	Psychology
RER	Race and Ethnic Relations
SCRN	Screen Studies
SOC	Sociology
SPAN	Foreign Languages and Literatures
STAT	Management
TA	Theater Arts
UDSC	Urban Development and Social Change
WS	Women's Studies

ANCIENT CIVILIZATION

Program Faculty

Paul Burke, Ph.D., *Program Coordinator*
Everett Fox, Ph.D.
Michael Pakaluk, Ph.D.
Ivy Sun, M.A.
Rhys Townsend, Ph.D.

Program Overview

The program in ancient civilization consists principally of courses in art history, classics, Jewish studies and philosophy. This interdisciplinary program covers the entire spectrum of ancient Mediterranean culture including Greek, Hebrew and Latin languages. By combining art history, Jewish studies and philosophy with what has been traditionally identified as classics (Greek and Latin language and literature), the Clark program in ancient civilization presents established disciplines in a stimulating and original configuration.

The Major In Ancient Civilization

The purpose of the major is to supply students with a sound knowledge of the ancient Greco-Roman and Judaeo-Christian roots of Western civilization. Majors are expected to acquire a working knowledge of at least one of the principal languages of the ancient Mediterranean (Classical Greek, Hebrew or Latin); this ensures direct access to the culture, literature, philosophy and history of the ancient world. Majors are also eligible to apply for admission to the Intercollegiate Center for Classical Studies in Rome, where they can spend a semester studying classical literature and archaeology.

Major Requirements

To graduate as an ancient civilization major, a student earns a grade of C- or better in at least 10 courses in ancient civilization. These courses must include:

1. At least two courses, from different departments, from among this group of foundation courses:
   ARTH110 Ancient Greek Art
   CLAS111 Roman Art and Architecture
   CLAS121 Introduction to Greek Culture
   HIST174 The Jewish Experience
   PHIL141 History of Ancient Greek Philosophy
2. At least one semester course at or above the intermediate level (language 103) in Greek, Hebrew or Latin.
3. A one-semester senior seminar, to be taken preferably during the second semester of the senior year, including a major research paper, arranged in consultation with at least two members of the program faculty by the end of the junior year.

Ancient Civilization Minor

An interdepartmental minor in ancient civilization consists of a total of six courses listed below, or other courses approved for the minor by program faculty. These courses must include:

1. At least two courses, from different departments, from the group of foundation courses listed under "Major Requirements."
2. At least two 200-level courses.

Students minoring in ancient civilization are strongly encouraged (but are not required) to study Latin, Greek or Hebrew for their remaining two courses.

Courses

CLAS111 ROMAN ART AND ARCHITECTURE/ LECTURE, DISCUSSION

Surveys artistic and architectural accomplishments of ancient Rome and the Roman Empire, beginning with the origins of Rome in Bronze Age central Italy. Studies Roman relations with Etruscans, Greeks and other non-Latin-speaking peoples as manifested in Roman art and architecture. Examines effects of Judaeo-Christian values on the formerly pagan Empire, appearance of a Christian Roman government and development of distinctively Christian forms of Roman art and architecture.
Mr. Burke/Offered periodically

CLAS120 THE EPIC JOURNEY/FIRST-YEAR SEMINAR

Surveys examples of ancient epic literature, beginning with the Sumerian Epic of "Gilgamesh" and the "Book of Exodus." Other texts studied include Homer's "Iliad and Odyssey" and Vergil's "Aeneid," all in English translation. The unifying idea of the course will be the concept of the hero and of heroic action in the various cultures of the ancient world. Mr. Burke/Offered every other year

CLAS124 INTRODUCTION TO CLASSICAL MYTHOLOGY/LECTURE, DISCUSSION

Studies English translations of ancient Near Eastern, Greek and Roman literary text (along with some modern ones) to understand the function of myth in Greco-Roman antiquity as a vehicle for artistic communication and social commentary. Emphasizes influence of ancient mythology on later European culture, especially literature and art. Includes slide illustrations.
Mr. Burke/Offered every other year

CLAS157 THE AGE OF NERO/LECTURE, DISCUSSION

Studies the first century of Roman Imperial society, particularly the reign of the emperor Nero (A.D. 54-68). Emphasizes historical, social and cultural results of consolidation to totalitarian rule in Rome, a form of government that dominated the Mediterranean world and most of Europe for four centuries.
Mr. Burke/Offered every other year

CLAS262 Jews and Christians in the Ancient World

A historical and cultural survey of the complex and tumultuous period between foundations of the Roman Empire and the sixth century A.D., when medieval culture was established in Europe. Studies the struggle between pagan or classical modes of thought and Judaeo-Christian beliefs and values, and the assimilation of each in the other; and the tension within the Christian movement between spiritual and practical concerns as the new religion came to dominate Western culture. Mr. Burke/ Offered every other year

CLAS267 Religious Experience in the Ancient World/Lecture, Discussion

Studies religious experience available to people of the ancient Mediterranean from approximately the time of Homer to the official acceptance of Christianity by Roman Imperial government. Includes: nature of polytheist gods, prophecy and oracles, conversion and spread of religious belief, Jewish and Christian monotheism, evil in ancient religious thought and the rise of Christianity. Mr. Burke/Offered every other year

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in Ancient Civilization. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See Art History

ARTH105 The Aegean World
ARTH106 Introduction to Archaeology
ARTH109 Classical Myth and the Greek
ARTH110 Ancient Greek Art
ARTH114 Ancient Cities and Sanctuaries
ARTH215 The Temple Builders: Architecture in Ancient Greece
ARTH219 Special Topics: Ancient Art

See Foreign Languages and Literatures

GRK101/GRK102 Introductory Greek I, II
GRK299 Supervised Reading in Philosophical Greek
LAT101/LAT102 Introductory Latin
LAT103 Intermediate Latin
LAT299 Supervised Reading in Philosophical Latin
LAT299.1 Directed Reading in Latin Literature

See Jewish Studies

JS150 Jerusalem in History and Imagination

ART HISTORY AND STUDIO ART

(See Visual and Performing Arts).

BIOCHEMISTRY AND MOLECULAR BIOLOGY

Program Faculty

David Thurlow, Ph.D., *Program Director*
Rafael Brüschweiler, Ph.D.
Frederick T. Greenaway, Ph.D.
David S. Hibbett, Ph.D.
Shuanghong Huo, Ph.D.
Denis Larochelle, Ph.D.
Thomas J. Leonard, Ph.D.
Timothy Lyerla, Ph.D.
Donald Nelson, Ph.D.
Deborah Robertson, Ph.D.
Justin Thackeray, Ph.D.

Emeritus Faculty

John J. Brink, Ph.D.

Program Overview

The biochemistry and molecular biology program offers an interdisciplinary major that draws on the faculty and course resources of the departments of biology and chemistry. Designed to provide students with an in-depth exploration of an area of science that is perhaps the most exciting and actively growing of any today, the program is suitable for students who want to pursue graduate studies in the area; enter medical school with a strong background in basic science; or take laboratory or other science-related positions after graduation. Those wishing to major in biochemistry and molecular biology must select an adviser within the program and file a plan of study with the program director.

Major Requirements

Students first obtain a solid grounding in biology, chemistry, physics and calculus; and then take biochemistry, a yearlong course sequence that covers our current understanding of the field. After that, there is a choice between two tracks, or alternative ways to complete the major, depending on the individual's interests.

The core curriculum consists of the following required courses:

- Introduction to Calculus (MATH120 and 121 or 124 and 125)
- Introduction to Physics (PHYS110 and 111 or 120 and 121)
- Introductory Chemistry (CHEM101 and 102)
- Introduction to Biology (BIOL101 and 102)
- BIOL118 Genetics
- BIOL137 Cell Biology or BIOL109 Microbiology
- Organic Chemistry (CHEM131 and 132)
- BCMB264 Biophysical Chemistry
- Biochemistry I and II (BCMB271 and 272)

The student will also complete one of the following two groups of courses, emphasizing either biochemistry or molecular biology.

Courses required for the biochemistry track:

- BCMB144 Bioanalytical Chemistry
- Protein Chemistry (BCMB275) or CHEM266 Biomolecular NMR or CHEM235 Natural Products

Courses required for the molecular biology track:

- BCMB228 Molecular Genetics
- BIOL231 Recombinant DNA

Students must also complete two additional courses related to biochemistry and molecular biology, which do not satisfy requirements for other majors. This requirement may be satisfied with any of the program offerings, a directed research course, any biology or chemistry course in the list above (and not already used to fulfill a requirement), or other biology or chemistry courses approved by the adviser.

Honors Program

A student interested in the honors program should contact the program faculty member with whom the student would like to do research and then apply in writing to the program director for admission. A "B" average is required. In addition to the program requirements, honors candidates must:

- Carry out a research project under the supervision of a faculty member in the biochemistry and molecular biology program
- Submit an honors thesis or publication based on the research project
- Present the research results in a public seminar
- Pass a comprehensive oral examination. Students are encouraged to begin their research in the summer following the junior year, if not earlier

Biochemistry and Molecular Biology Minor

The requirements for a minor in biochemistry and molecular biology are BCMB271/BCMB272 Biochemistry I and II. Two additional related courses, neither of which may be used to satisfy requirements for other majors, minors or concentrations.

Courses

BCMB144 BIOANALYTICAL CHEMISTRY/LECTURE, LABORATORY

Presents both theoretical and practical aspects of quantitative analysis as they apply to biological macromolecules-proteins and nucleic acids. Topics include statistical procedures for evaluating analytical data; equilibrium theory; titrimetric, spectroscopic and electrochemical methods of analysis; chromatographic and electrophoretic methods; and kinetic methods of analysis. The laboratory component of the course will emphasize accurate and precise data collection and various computational approaches to data analysis. A significant portion of the laboratory phase of the course will be devoted to carrying out a group research project, such as the isolation and partial characterization of a new protein from a novel biological source. Prerequisite: CHEM271. Mr. Nelson/Offered every other year

BCMB228/BCMB328 MOLECULAR GENETICS/LECTURE, SEMINAR

Explores recent discoveries in the molecular genetics of prokaryotes and eukaryotes, with emphasis on new findings related to catalytic activities of RNA. Topics include: protein synthesis, RNA transcription, gene regulation, RNA splicing, catalytic RNA and origins of living systems. Intended primarily for seniors and graduate students. Prerequisite: BCMB271 or BIOL118 or permission of instructor. Mr. Thurlow/Offered every year

BCMB252/BCMB352 BIOINORGANIC CHEMISTRY/LECTURE

Discusses the chemistry of metals in biological systems and models of these systems. The introductory material introduces general principles and theories of biochemistry and inorganic chemistry and of metal ion and drug transport in biological systems. This is followed by an introduction to physical techniques used in studying metalloproteins. The major part of the course discussed the application of these principles and methods to a wide range of metallobiological systems. Prerequisite: permission of the instructor. Mr. Greenaway/Offered periodically

BCMB264/BCMB364 BIOPHYSICAL CHEMISTRY/ LECTURE, LABORATORY

Emphasizes the physical chemistry of biological macromolecules-proteins and nucleic acids. Covers the basic laws of thermodynamics, molecular thermodynamics (including aspects of modeling macromolecular structure, molecular mechanics and molecular dynamics simulations), statistical thermodynamics, x-ray and NMR structure determination, light scattering by macromolecules, quantum mechanics and spectroscopy, and solution behavior of macromolecules. The laboratory sessions are split between "wet" macromolecular chemistry and computational projects. Prerequisite: BCMB271 or permission of instructor. Mr. Nelson/Offered every other year

BCMB271/BCMB371 BIOCHEMISTRY I/LECTURE, LABORATORY

A comprehensive survey of biochemistry and molecular biology, including protein structure, enzyme kinetics, membrane structure, DNA structure, replication, transcription and translation. The laboratory introduces basic techniques including safe use of radioisotopes, isolation of proteins, purification of enzymes, enzyme kinetics, gel electrophoresis, column chromatography and DNA isolation and characterization. Prerequisite: BCMB271 and CHEM132. Mr. Nelson and Mr. Thackeray/ Offered every year.

BCMB272/BCMB372 BIOCHEMISTRY II/LECTURE

A comprehensive survey of the carbohydrates, energy metabolism and metabolic biochemical pathways. Topics include glycolysis, TCA cycle, oxidative and photosynthetic phosphorylation, catabolism and anabolism. The discussion section reviews articles from the literature on recombinant DNA, signal transduction and other current topics. Mr. Thurlow/Offered every year.

BCMB275/BCMB375 PROTEIN CHEMISTRY/ LECTURE

Presents an in-depth view of protein structures and molecular properties, and discussions of how structure and properties are inextricably linked to biological function. Topics discussed include: chemical properties of polypeptides, biosynthesis of proteins, posttranslational modifications, evolutionary and genetic origins of protein sequences, physical interactions that determine the properties of proteins, the folded conformations of proteins, proteins in solution and in membranes, interaction of proteins with other molecules, enzyme catalysis and protein degradation. This course has a computational component, which will provide students with

hands-on learning experience using sophisticated molecular modeling/molecular mechanics software packages on a selected protein system. These projects will utilize in-house software packages as well as other programs accessed over the Internet. Prerequisite: BCMB271 or permission of instructor.
Mr. Nelson/Offered every other year

BCMB297 HONORS

Departmental honors in biochemistry and molecular biology requires laboratory research, a thesis and a seminar. Staff/Offered every semester.

BCMB298 INTERNSHIP

Internships are arranged through the Internship Office within the Office of Career Services. Students may register under BCMB298 provided that the Clark internship supervisor is a member of the Biochemistry and Molecular Biology program. Staff/Offered every semester

BCMB299 DIRECTED STUDY

Individual investigations involving laboratory research under the direction of a professor or advanced readings in the scientific literature. Offered for variable credit. Prerequisite: permission of instructor. Staff/Offered every semester

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in Biochemistry and Molecular Biology. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

Students may also register for these courses as BCMB.

See Biology

BIOL231/BIOL331 Recombinant DNA

See Chemistry

CHEM273/CHEM373 Principles of Molecular Modeling
CHEM279/CHEM379 Computer Biochemistry

BIOLOGY

Program Faculty

Thomas J. Leonard, Ph.D., *Chair*
Susan Foster, Ph.D.
David S. Hibbett, Ph.D.
Linda Kennedy, Ph.D.
Denis Larochelle, Ph.D.
Todd Livdahl, Ph.D.
Timothy Lyerla, Ph.D.
Deborah Robertson, Ph.D.
Justin Thackeray, Ph.D.
Nicholas Thompson, Ph.D.

Adjunct Faculty

Halina S. Brown, Ph.D.
Frederick T. Greenaway, Ph.D.
Stanley R. Herwitz, Ph.D.
Donald J. Nelson, Ph.D.
David L. Thurlow, Ph.D.

Affiliate Faculty

Clayton B. Cook, Ph.D.
Craig Ferris, Ph.D.
Philip Robakiewicz, Ph.D.

Emeritus Faculty

Vernon Ahmadjian, Ph.D.
John J. Brink, Ph.D.
Joseph C. Curtis, Ph.D.
H. William Johansen, Ph.D.
John T. Reynolds, Ph.D.

Program Overview

The department offers courses that prepare students for work and advanced study in the biological and biomedical sciences; provides support for other programs within the University that require students to obtain a background in one or more subfields of biology; and meets the needs of nonscience majors who wish to integrate the perspectives of the science of biology into a liberal-arts curriculum. The major in biology is especially suitable for students who intend to go on to professional schools in the health sciences or graduate work in a variety of subfields of the biological sciences.

The department provides a set of requirements for students wishing to optimize their breadth of exposure to the field as a whole. The department encourages students to identify an area to emphasize within biology and to plan a sequence of courses that will provide depth of exposure to the topics within that area, including a research experience, if possible.

The department offers two general curricula: one in cell and molecular biology and one in ecology and evolution. Prospective majors are urged to consult with an adviser selected from the department's faculty, especially to take advantage of opportunities to participate in ongoing research in the honors program, specialized research courses and internships. Please note that the two-semester course, Introduction to Biology (BIOL101 and 102) is a prerequisite for all other courses in biology that will be used to meet the requirements for the major.

Major Requirements

For all biology majors:

- 10 courses in biology, including BIOL101 and BIOL102 (see below)
- Two courses in chemistry (CHEM101and CHEM102)
- Courses in mathematics to include a year of calculus (MATH120 and 121, or MATH124 and 125), or one semester of calculus combined with Quantitative Methods in Biology (BIOL106); if Quantitative Methods in Biology is used to meet this requirement, it will not count toward the total of 10 required biology courses.
- Two additional courses in chemistry, geology, computer science, mathematics (at 120 level or higher) or physics. Aside from Introduction to Physics and Introduction to Geology, none of these may be designated as science-perspective courses.
- Science and mathematics courses offered to meet the major requirements may not be taken with a pass option.

At least two of the 10 required biology courses must be at the 200 level or above, and no courses carrying the science-perspective designation except BIOL101 and 102, BIOL111 and 140, CHEM101and 102, and PHYS110 and 111 may be used to satisfy major requirements.

Additional Requirements for the Generalized Biology Major

One course must be completed in each of the following three areas:

1. Molecular and Cell Biology, including BIOL118 Genetics, and BIOL137 Cell Biology
2. Organismal Diversity, including BIOL109 Microbiology, BIOL110 Botanical Diversity, BIOL112 Comparative Vertebrate Anatomy, BIOL140 Biology of the Brain, BIOL180 Introduction to Fungal Biology
3. Ecology and Evolution, including BIOL105 Evolution, BIOL114 Marine Biology, BIOL216 Ecology, BIOL220 Population Biology

Additional Requirements for the Curriculum in Ecology and Evolution

The eight biology courses beyond BIOL101 and 102 shall be structured as follow:

- BIOL105 Evolution
- Two courses that are primarily informational in content, aimed at describing a wide variety of aspects of the natural environment or evolution, including BIOL110 Introduction to Plant Diversity, BIOL112 Comparative Vertebrate Anatomy, BIOL114 Marine Biology, BIOL180 Introduction to Fungal Biology, BIOL242 Animal Behavior
- Two courses with an analytical or theoretical orientation, including BIOL118 Genetics, BIOL135 Paradox of Animal Sociality, BIOL216 Ecology, BIOL220 Population Biology, BIOL254 Molecular Evolution

- One course that develops research techniques: BIOL109 Microbiology, BIOL201 Ecology of Atlantic Shores, BIOL280 Biostatistics and Computer Applications, BIOL213 Forest Hydrology and Field Methods
- One seminar course: BIOL222 Community Ecology, BIOL204 Watershed Ecology, BIOL223 Topics in Marine Biology, BIOL243 Seminar in Evolution
- Capstone project: At present, this can be fulfilled through a directed-research project with one of the faculty members on the curriculum committee or an internship in an area relevant to ecology and evolution, as approved by the committee.

Honors Program

Well-qualified upper-division majors are eligible for admission to a program that can lead to a bachelor of arts with honors. A candidate for honors must meet all requirements of the major, maintain a high grade-point average, complete an independent research project under the direction of a departmental faculty member, prepare an acceptable thesis and pass a final comprehensive examination. The criteria for admission into the honors program are outlined in material available from the department.

Biology Minor

The requirements for a minor in Biology are:

1. BIOL101 and 102 Introductory Biology
2. Four additional courses spanning at least two of the three subject categories set out in the Generalized Biology Major. A selection of appropriate courses in each designation is listed in the description of the major, but students are not restricted to selecting from this list. At least one of the four must be at the 200 level and none, except BIOL111 and BIOL140 can carry the science-perspective designator. All students wishing to complete a minor must select courses, receive approval from their biology faculty adviser and declare the minor by the end of the junior year, although earlier is recommended.

Special Field Courses

Biology majors are encouraged to take field courses and to engage in field-research projects. Clark University maintains formal affiliations with the following organizations, enabling students to apply for admission and, in some cases, preferential financial-aid consideration. Courses from these organizations can be taken in place of other courses required for either the generalized biology major or the curriculum in Ecology and Evolution.

The Bermuda Biological Station is an internationally renowned center for marine biological and oceanographic research. Intensive summer field courses are available for qualified Clark students. Any of these courses can be taken for biology major credit.

The Semester in Environmental Sciences is offered in the fall by the Ecosystems Center at the Marine Biological Laboratories, Woods Hole, Mass. Students enrolled in SES receive four units of credit for participation in this research-intensive academic program.

The School for Field Studies operates six centers at which semester-long field-oriented courses may be taken for four credit units:

- The Center for Rainforest Studies (Australia)
- The Center for Marine Resource Studies (Turks and Caicos Islands, Caribbean)
- The Center for Wildlife Management Studies (Kenya)
- The Center for Coastal Studies (Baja, Mexico)
- The Center for Sustainable Development Studies (Costa Rica)
- The Center for Rainforest and Fisheries Studies (British Columbia, Canada)

Clark students are also eligible for admission into summer courses at these centers. Students interested in taking any of these courses for credit toward the major must first take at least one course in either the organismal or population areas (biology course categories 2 or 3 described for the Generalized Biology Major).

The specific course offerings at the Bermuda Biological Station and the School for Field Studies may change each year. Recent, detailed information on the School for Field Studies and the Bermuda Biological Station is available at Web sites maintained by those organizations (www.fieldstudies.org and www.bbsr.edu). Students who wish to apply for these or other off-campus course programs are urged to consult with their biology adviser to ensure that the program will satisfy the student's needs for a well-planned biology major.

Accelerated Degree Program

This plan, which enables students to complete the requirements for the bachelor of arts and master of arts within five years, is intended for students who develop sharply focused research interests. Undergraduates who will have completed the chemistry and mathematics requirements for the biology major by the end of their third year may apply for admission to this program during the second semester of their third year.

Students accepted into the program will be advised individually by a committee of faculty members who will set forth the specific course requirements and research expectations for the master's portion of the program. Courses taken at the 200 level or higher may be counted toward the course requirements for both the bachelor's degree, which will normally be awarded after the fourth year, and the master's degree, normally awarded after the fifth year.

A successful preliminary examination, submission of a thesis and a final examination based on the contents of the thesis are required of all master's degree recipients. Specific requirements of the program and application procedures are available in the department office or on our Web site at http://www.clarku.edu/departments/biology/index.cfm

Graduate Program

The department offers course work leading to the doctor of philosophy in biology. The department has two foci for graduate emphasis: molecular and cell biology or ecology and evolution.

Students applying for admission must demonstrate adequate preparation in the basic sciences, an overall undergraduate record of B- or better, and satisfactory scores on the Graduate Record Examination (and TOEFL for International Students). Tuition scholarships and research and teaching assistantships are available to qualified students. Further information can be obtained from the department or our Web site at http://www.clarku.edu/departments/biology/.

Courses

BIOL040 Brain and Environment/First-Year Seminar

This seminar is a laboratory-focused course on how we use specialized systems in our brains to find out about our environment. The class as a group will conduct original research on unsolved problems in human sensory physiology: how we detect and identify a food substance as sweet. We will review the known anatomy and physiology of the brain system for taste and discuss how systems for seeing, hearing, smelling and touching are similar. Then we will consider recent research on the problem of sweet taste, work out the details of our experimental design, test a group of human subjects, and analyze and interpret the data. Each student will write a final paper reporting the research in the style of a scientific journal article. Enrollment is limited to 12 students. A high-school chemistry background is recommended. Fulfills the science perspective. Ms. Kennedy

BIOL101/BIOL102 Introduction to Biology I and II/Lecture, Laboratory

This two-semester course is designed with three goals in mind: (1) to provide students with an understanding of the unifying themes in modern biology, (2) to introduce students to the diversity of life forms at all levels of organization, and (3) to illustrate the methods and modes of scientific inquiry in the biological sciences. The emphasis is on cellular and molecular biology during one semester and organismic and evolutionary biology during the other semester. Both semesters must be completed before a student can enroll in advanced courses offered to satisfy the requirements of the biology major. Qualified students must obtain approval from the chair of the department to have this requirement waived. Staff/Offered in sequence every year

BIOL104 BIODIVERSITY/LECTURE

Students will explore the diversity of life on earth and the mechanisms by which this diversity is thought to have been generated. The implications of loss of biodiversity will be considered as will the causes of biodiversity decline. Conservation issues will be addressed. Satisfies the science perspective. Not for biology majors. Ms. Foster and Mr. Hibbett/Offered alternate years

BIOL105 EVOLUTION/LECTURE, LABORATORY, DISCUSSION

An introduction to the mechanisms and patterns of evolutionary change during the earth's history. Although this course will briefly survey the major evolutionary events that have occurred since life first evolved, the emphasis will be on mechanisms of evolutionary change (e.g. mutation, natural selection, genetic drift and gene flow) and resultant patterns (e.g. phylogenetic pattern, coevolution, stasis, adaptive radiation). Prerequisites: BIOL101 and 102. Ms. Foster/Offered every year

BIOL106 QUANTITATIVE METHODS IN BIOLOGY/LECTURE, LABORATORY

An introduction to mathematical and statistical methods that are most useful to biologists, this course provides skills that are useful in organizing and summarizing data, graphic methods of data presentation, and testing hypotheses based on experimental results. Key mathematical methods for describing biological phenomena are included, along with basic techniques for identifying differences among groups and relationships among variables. This course may be used by biology majors to fulfill part of their mathematics requirement. Alternatively, it may be counted among the required 10 biology courses for the major. Prerequisites: BIOL101, BIOL102, and one semester of calculus (MATH120 or MATH124). Mr. Livdahl/Offered every year

BIOL109 MICROBIOLOGY/LECTURE, LABORATORY

Introduces the fundamental principles and methods of microbiology with applications to the biomedical and environmental sciences. Emphasis is on bacteriology. Prerequisites: BIOL101, BIOL102 and CHEM102; or permission of instructor. Mr. Leonard/Offered every year

BIOL110 INTRODUCTION TO BOTANICAL DIVERSITY/ LECTURE, LABORATORY

Biodiversity and structure of plants, protists and fungi are examined in a phylogenetic context. The evolution of photosynthetic mechanisms, transport systems and nutritional modes are considered, as are the ecological and economic significance of plants and other organisms traditionally studied by botanists. Prerequisites: BIOL101 and 102. Mr. Hibbett/Offered every year

BIOL111 BASIC HUMAN ANATOMY/LECTURE,LABORATORY

An introduction to the anatomy of organs and organ systems in the human, including the skeletal, muscle, circulatory, digestive, urogenital, respiratory and nervous systems along with the sense organs. The laboratory uses the cat as the model for the human organs and organ systems, which requires dissection of preserved, latex-injected specimens, and includes the human skeletal system. Mr. Lyerla/Offered every year

BIOL112 COMPARATIVE VERTEBRATE ANATOMY/ LECTURE, LABORATORY

A review of the morphology of the vertebrates with emphasis on evolution from fishes to mammals. Anatomical analyses of organ systems are stressed. Prerequisites: Introductory Biology at the college level. Mr. Lyerla/Offered every year

BIOL114 MARINE BIOLOGY/LECTURE, FIELD TRIPS

Introduces the diversity and ecology of life in the oceans. Studies of basic physical oceanography and marine ecology precede studies of marine ecosystems such as salt marshes, kelp forests, rocky shores plankton, and deep seas. Also included are the relationships of marine biology to the welfare of mankind. Prerequisites: BIOL101 and 102. Ms. Robertson/Offered every year

BIOL118 GENETICS/LECTURE, LABORATORY

Investigates the nature of genes and their role in governing heredity in both prokaryotes and eukaryotes. Includes the principles of gene transmission, the nature of gene and chromosomal mutation, principles of gene mapping. Some aspects of molecular genetics and mechanisms of gene expression will be discussed but are not a major part of the course. Additional topics include population and quantitative genetics, as well as the role of genes in behavior. Also includes an integrated laboratory that highlights many aspects of the lectures. Prerequisites: BIOL101 and 102. Mr. Thackeray/Offered every year

BIOL122 ECOLOGICAL SYSTEMS/LECTURE, LABORATORY

Introduces ecological science and practice, including population, community and ecosystem levels of approach. The objective of the course is to ground students in ecological theory and methods and to examine the impacts and consequences of human modification of natural ecosystems. Satisfies the science perspective. Ms. Foster/Offered alternate years

BIOL137 CELL BIOLOGY/LECTURE, LABORATORY

The cell as a functional unit is discussed from the molecular level to the whole cell. Included are introductions to the biochemistry and metabolic roles of some of the molecules and macromolecules that are found in cells. Also discussed are the evolution, structure and function of the various subcellular organelles and the cytoskeleton. Emphasis is placed on understanding the molecular mechanisms behind cell physiology and the experimental methods used to determine those mechanisms. Prerequisites: BIOL101 and 102. Mr. Larochelle/Offered every year

BIOL140 BIOLOGY OF THE BRAIN/LECTURE, LABORATORY, DISCUSSION

An introduction to the organization and function of the nervous system. Lectures focus on the human brain with reference to knowledge obtained from animal models. Includes basic information about the anatomical, physiological and chemical properties of the brain and how these properties enable us to perceive and move around in our environment. Laboratory/Discussion sessions include demonstrations of nerve-cell signaling, testing of human reflexes and sensory perception, dissections, and discussion of issues that arise in modern neuroscience: understanding the relation between the mind and brain. Satisfies the science perspective. Prerequisites: BIOL101 or permission of instructor. Ms. Kennedy/Offered every year

BIOL141 BRAIN AND BEHAVIOR/LECTURE, DISCUSSION

An exploration of how specific neural systems are involved in various behaviors. Emphasizes first, systems where the relationships between brain and behavior are best understood, such as perception, motivation, mood, emotion, sleep and consciousness, language and attention. Second, information from the frontiers of neuroscience about how the biology of the brain changes as the result of the experiences of the individual, including mechanisms for learning and memory, is discussed. Prerequisite: BIOL140. Ms. Kennedy/Offered every year

BIOL180 INTRODUCTION TO FUNGAL BIOLOGY/LECTURE, LABORATORY

Introduces the diversity, ecology and evolution of fungi. Lectures emphasize morphological and ecological attributes of fungi and their significance to humans. Topics to be addressed include medical mycology, fungal symbioses and nutritional modes, and fungal physiology. Laboratories will provide experience in culturing fungi and manipulating life cycles in vitro.

Field trips will provide opportunities to collect and observe fungi in their natural habitats. Prerequisites: BIOL101 and 102. Mr. Hibbett/ Offered every other year

BIOL201/BIOL301 ECOLOGY OF ATLANTIC SHORES/LECTURE, FIELD TRIP

This course explores the ecology of marine organisms found in diverse Atlantic habitats, ranging from the rocky intertidal of New England to the coral reefs of Bermuda. The course includes lectures, field research, and a one-week trip to the Bermuda Biological Station for Research during semester break. Students must pay a fee (approximately $1400) for the cost of lodging, meals and airfare to Bermuda. Prerequisites: BIOL101, 102. Recommended: BIOL114 or 216. Mr. Livdahl and Ms. Roberston/Offered every fall

BIOL213/BIOL313 CARE AND USE OF LABORATORY ANIMALS/LECTURE, LABORATORY

The use of laboratory animals for research is highly regulated in order to ensure the well-being of these subjects. Their use is essential for the continuing improvement and maintenance of human health. This course will cover the federal guidelines for the procedures for the care and handling of laboratory animals, how they are implemented and how they are regulated. Practical experience in the care and handling of mice, a representative laboratory animal, will be obtained through the laboratory portion of this course. Prerequisites: BIOL112 or BIOL140. Mr. Lyerla/Offered periodically

BIOL216/BIOL316 ECOLOGY/LECTURE, LABORATORY

Provides an overview of ecology as a scientific discipline. The primary emphasis is on efforts to explain and predict the distribution and abundance of organisms, how ecological communities are composed and why they vary in time and space. Prerequisites: one or more courses from the organismal biology group and one college-level math course. Mr. Livdahl/ Offered every year

BIOL217/BIOL317 ECOLOGY OF INFECTIOUS DISEASE/SEMINAR

Explores the relationship between infectious disease agents and their hosts and how that interaction can effect changes in the abundance of host and pathogen populations. Factors that contribute to the occurrence and persistence of epidemics, the evolution of virulence and transmission and strategies for controlling epidemics will be considered using theoretical approaches and case studies of diseases affecting humans and other hosts. A wide spectrum of human diseases will be considered, including human pathogens of recent concern (examples include HIV, Lyme Disease, West Nile Virus) and of historic and continuing importance (e.g., schistosomiasis, bubonic plague, malaria, smallpox, yellow fever). Prerequisites: BIOL216 or BIOL220. Mr. Livdahl/Offered periodically

BIOL218/BIOL318 GENETICS AND DISEASE/ LECTURE, DISCUSSION

Inherited disorders in humans. Consideration of methods and results of mapping and cloning disease genes in humans. Special topics include molecular pathology, genome projects and current trends in therapies for genetic disorders. Prerequisites: Genetics and Introductory Chemistry. Good familiarity of techniques in Recombinant DNA is essential. Mr. Lyerla/ Offered every year

BIOL219/BIOL322 PHYSIOLOGICAL ECOLOGY OF MARINE ALGAE/LECTURE, LABORATORY

This course will introduce upper-division undergraduate and graduate students to algal diversity and the physiological ecology of marine algae. The course will include lectures, readings, discussions and laboratory research. Topics of discussion include evolution, biochemistry, molecular biology and physiology of photosynthetic cells. In the laboratory, students will learn various techniques including measurements of photosynthesis, determination of enzyme activity and methods used to examine gene expression. The topics and techniques covered in the course are readily applied to the physiology of a broad range of organisms.

Prerequisites: BIOL101, BIOL102 and either BIOL110, BIOL118 or BIOL137. Ms. Robertson/Offered every spring

BIOL220/BIOL320 POPULATION BIOLOGY/ LECTURE

Examines the properties that exist only at the population level, including schedules for birth and death, population growth patterns, spatial variation in abundance, genetic variation and the factors that modify these features over time. Prerequisites: BIOL118 and 216, or permission of instructor. Mr. Livdahl/Offered every other year

BIOL221/BIOL321 DEVELOPMENTAL BIOLOGY/ LECTURE, LABORATORY

Considers the fundamentals of development from the molecular level up to the organismal. Emphasis is placed on the major animal model systems. Prerequisites: BIOL137 or permission of instructor. Mr. Larochelle/Offered every year

BIOL222/BIOL333 COMMUNITY BIOLOGY/ SEMINAR

Factors affecting the biological structure of natural communities are examined with close attention to field experiments on competition and predation. Prerequisites: BIOL101, BIOL102 and permission of instructor. Mr. Livdahl/Offered periodically

BIOL223/BIOL323 TOPICS IN MARINE BIOLOGY/LECTURE, SEMINAR

Provides an opportunity to delve in depth into selected topics in marine biology. Studies biological oceanography, marine ecology, marine coastal and open ocean communities, and relationships between humans and the sea. Limited to 15 students. Prerequisite: BIOL114. Ms. Robertson/Offered every other year

BIOL224/324 ECOLOGY OF DISEASE VECTORS/ LECTURE, LABORATORY

This course provides a field-intensive, project-oriented exposure to the biology of arthropods that transmit disease, with particular emphasis on ecology of mosquitoes. Methods include quantitative sampling techniques, species identification based on morphology and DNA, detection of medically important viruses, and experimental approaches to understanding interactions among species. The primary aim for the group will be to track the course of mosquito invasions. We will process samples obtained from school groups throughout the Midwest and Mid-Atlantic States to track the progress of a mosquito introduced from Asia. We will examine in detail two invasions that are presently under way in Bermuda and conduct experiments on egg-laying behavior during a week-long field trip to Bermuda. Field trips will also include trips to wetlands and forests in New England. Students must pay a fee (approximately $1400) for the cost of lodging, meals and airfare to Bermuda. Prerequisites include any of the following courses: BIOL216, BIOL217, BIOL220 or permission of instructor. Mr. Livdahl/Offered every year

BIOL227/BIOL327 SOMATIC CELL AND MOLECULAR GENETICS/LECTURE, LABORATORY

This course focuses on genetic manipulation of cultured vertebrate cells mainly through the introduction of foreign DNA. Topics include the use of somatic cell hybrids for gene mapping, the use of packaging cell lines for production of genetically modified retroviruses, and methods of DNA transfection in vertebrate cells. Available to upper-division undergraduate and all graduate students in the natural sciences. Prerequisites: BIOL229 recommended or some prior experience with cell culture methods. Mr. Lyerla/Offered every year

BIOL229/BIOL329 PRICIPLES OF CELL CULTURE/LECTURE, LABORATORY

An introduction to the methods used for propagation and experimental investigations of cells derived from multicellular organisms. Topics to be covered include husbandry of established cell lines, preparation of media, cell selection methods, cloning and production of cell lines. Prerequisites: BIOL229 Principles of Cell Culture or equivalent experience. Mr. Lyerla/Offered every year

BIOL231/BIOL331 RECOMBINANT DNA/ LECTURE, LABORATORY

A laboratory-oriented course designed to introduce recombinant DNA methodology. Students undertake a semester-long project, which will vary each time the course is offered. A typical project might involve construction of a genomic library, isolation of specific clones from the library and characterization of these clones. Methods usually include DNA purification, Southern blot hybridization, restriction enzyme mapping, bacterial transformation, polymerase chain reaction (PCR) and DNA sequencing. Prerequisite: BIOL118 or permission of instructor. Mr. Thackeray/Offered every year

BIOL234/BIOL334 SIGNAL TRANSDUCTION/ LECTURE

An advanced course exploring the various molecular and biochemical pathways through which cells communicate with themselves and the extracellular environment. Topics include protein phosphorylation, G-proteins, phospholipid metabolism, the action of oncogenes and several ionic signaling pathways. Both lectures and student presentations of papers culled from current literature. Prerequisite: BIOL137, or BIOL271 or permission of instructor.
Mr. Larochelle and Mr. Thackeray/Offered periodically

BIOL238/BIOL338 SEMINAR IN CELL BIOLOGY/SEMINAR

Discussion based on research papers from the current literature, will be focused on an area in cell biology selected by the participants on the first day. The weekly readings will be selected by both the students and the faculty member. The scientific content, as well as the methodology will be discussed in detail. Prerequisites: BIOL137 or permission of the instructor.
Mr. Larochelle/Offered every year

BIOL240/BIOL340 HUMAN PHYSIOLOGY/ LECTURE

Introduces the principles underlying physiological function. Lectures cover the subcellular, cellular and organ levels of organization and place a primary emphasis on the integrative processes whereby all of the diverse organs and systems contribute to the performance of the complete individual. Prerequisites: BIOL137 or 271. Enrollment is normally restricted to juniors, seniors and graduate students.
Ms. Kennedy/Offered every year

BIOL242/BIOL342 ANIMAL BEHAVIOR/LECTURE, LABORATORY

Examines the causes and evolution of the behavior of animals. The largest part of this course will focus on the adaptive value and evolution of behavioral patterns, but a general overview of behavioral development and causation will be provided to offer the necessary background for interpretation of the ultimate causes of behavior. Prerequisites: BIOL105 or 220 and permission of instructor. Ms. Foster/ Offered even years

BIOL243/BIOL343 SEMINAR IN EVOLUTION/ SEMINAR

Discussion of a topic in evolution selected by interested students the previous fall. Readings will be from original literature. The format will be a combination of lecture and discussion. Prerequisites: BIOL105 and 118 or 220. Permission of instructor required. Ms. Foster/ Offered odd years

BIOL250/BIOL351 IMMUNOLOGY/LECTURE, DISCUSSION

Immunology is a study of the principles of innate and adaptive immunity. We first introduce the cells of the immune system and the tissues in which they develop and through which they circulate or migrate. We discuss the specialized functions of the different types of cells and the mechanisms whereby they eliminate infection. Prerequisites: Permission from instructor. Mr. Leonard/Offered every year

BIOL252/BIOL352 SEMINAR IN MYCOLOGY/ SEMINAR

This course will treat selected topics in fungal biology, emphasizing molecular approaches to fungal ecology and evolutionary biology. Topics will vary from year to year and may include: ecology and evolution of fungal symbioses;

molecular approaches to studies of fungal biodiversity; integration of fungal genomics and fungal ecology and evolutionary biology; and evolution of fungal nutritional modes and decay mechanisms. Undergraduates are welcome and will be graded separately from graduate students. Prerequisites: BIOL102 and permission. Mr. Hibbett/Offered periodically

BIOL254/BIOL354 MOLECULAR EVOLUTION/ LECTURE, LABORATORY

This course is designed for students who are interested in either molecular or evolutionary biology. Topics to be discussed include: evolution of genes and genomes, methods used to estimate evolutionary relationships using molecular data, and applications of molecular data to general problems in biology. The course will include lectures, student-led discussions, laboratory projects using computer-based applications and presentations of these projects. Prerequisites: BIOL101, 102. Mr. Hibbett and Ms. Robertson/Offered every other spring.

BIOL256/BIOL356 BIOLOGY OF SYMBIOSIS/ LECTURE, LABORATORY

This course focuses on the ecological and evolutionary aspects of symbioses, the intimate associations among different species that are ubiquitous in nature. Examples of symbioses include lichens, corals and pollination syndromes. Lectures introduce general theory regarding evolution and ecology of symbioses, and student-led discussions are based on primary research articles focusing on specific systems. Mr. Hibbett/Offered every other year

BIOL280/BIOL380 BIOSTATISTICS AND COMPUTER APPLICATIONS/LECTURE

Provides a background in the basic methods of data analysis for biologists, applications of mathematics to the description of biological phenomena, and the generation of testable hypotheses from models of biological processes. Prerequisites: one or more biology courses beyond BIOL101 and 102. Mr. Livdahl/Offered every year

BIOL297 HONORS IN BIOLOGY

Readings and research for students in the honors program. Staff/Offered every year

BIOL298 INTERNSHIP

Independent research at off-campus sites for the purpose of broadening the backgrounds of qualified students. Each internship is guided by an on-site professional and a department faculty member. Staff/Offered every year

BIOL299 DIRECTED STUDY

Advanced readings or research under the direction of a department faculty member. Prerequisite: permission of instructor. Staff/ Offered every year

BIOL350 GRADUATE RESEARCH SEMINAR

Invited lecturers present seminars on varied research topics. Required for all graduate students. Offered for variable credit. Staff/Offered every semester

BIOL396 MASTER'S THESIS

Offered for variable credit. Staff/Offered every year

BIOL397 DOCTORAL DISSERTATION

Offered for variable credit. Staff/Offered every year

BIOL398 INTERNSHIP

Offered for variable credit. Staff/Offered every year

BIOL399 DIRECTED STUDY

Offered for variable credit. Staff/Offered every year

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in Biology. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See Biochemistry

BCMB228/BCMB328 Molecular Genetics
BCMB271/BCMB371 Biochemistry I
BCMB272/BCMB372 Biochemistry II

See IDCE

EN241/EN341 Risk Assessment in Environmental Toxicology
EN246/IDCE30246 Cancer: Science and Society

IDCE30287 Fundamentals of Environmental Science
IDCE30288 Applied Ecology

See Geography
GEOG232/GEOG332 Landscape Ecology

See Psychology
PSYC135 The Paradox of Animal Sociality
PSYC226 Research in Bioacoustics

CHEMISTRY

Program Faculty

Mark Turnbull, Ph.D., *Chair*
Daeg Brenner, Ph.D.
Rafael Brüschweiler, Ph.D.
Karen Erickson, Ph.D.
Frederick T. Greenaway, Ph.D.
Shuanghong Huo, Ph.D.
Alan Jones, Ph.D.
Donald Nelson, Ph.D.
Luis Smith, Ph.D.
David Thurlow, Ph.D.

Affiliate Faculty

David Kupfer, Ph.D.
William Royer, Ph.D.

Emeritus

Harry C. Allen Jr., Ph.D.
Edward N. Trachtenberg, Ph.D.
Wen-Yang Wen, Ph.D.

Program Overview

The department offers an undergraduate program with the following goals in mind:

- To provide a variety of course offerings that are consistent with the accreditation requirements of the American Chemical Society
- To offer a program that will prepare students for graduate work in chemistry and related fields
- To provide a strong scientific background for students planning careers in health-related professions; and
- To encourage students not majoring in science to obtain an overview of the impact of science on society

The department offers two tracks leading to a B.A. in chemistry. The requirements for the two tracks are designed to allow students to choose their course work depending upon their ultimate career goals.

Major Requirements

All students in either track (Standard and ACS-Certified) must complete two courses in calculus (either MATH120 and 121, or MATH124 and 125) and two courses in physics (either PHYS110 and 111, or preferably PHYS120 and 121).

In addition:

ACS-Certified Track

Students must complete 11 courses in chemistry, including:

CHEM101 Introductory Chemistry I
CHEM102 Introductory Chemistry II
CHEM131 Organic Chemistry I
CHEM132 Organic Chemistry II
CHEM142 Environmental Chemistry or
  CHEM144 Bioanalytical Chemistry
CHEM250 Inorganic Chemistry
CHEM260 Physical Chemistry I
CHEM262 Physical Chemistry II or
  CHEM264 Biophysical Chemistry
CHEM271 Biochemistry

The remaining two-course requirement is normally satisfied by advanced chemistry courses, one of which may be directed research or honors. Instead of CHEM271, the student may substitute BCMB144 Bioanalytical Chemistry and BCMB264 Biophysical Chemistry. On rare occasions, with advanced permission from the department, the student may substitute one advanced-level course in computer science, mathematics, physics or biology.

Standard Track

Students must complete 10 courses in chemistry including:

CHEM101 Introductory Chemistry I
CHEM102 Introductory Chemistry II
CHEM131 Organic Chemistry I
CHEM132 Organic Chemistry II
CHEM142 Environmental Chemistry or CHEM144 Bioanalytical Chemistry
One semester of Physical Chemistry (either CHEM260, 262 or 264)

The remaining four courses must be advanced-level chemistry courses (200 or higher) and at least two of them must have laboratory sections. One course may be directed research.

The ACS-certified track meets the entrance requirements for graduate study in chemistry and is recommended for those students with a strong interest in chemistry and a desire for a profession in the chemical sciences. The standard track offers more latitude in course selection and is appropriate for those students with an interest in chemistry, but who plan to continue in one of the health professions (medical, dental or veterinary school), public-school teaching, technical sales, etc.

The requirements for the first two years are identical, so students do not need to make a final decision on which track to follow until the end of their sophomore year, but are encouraged to discuss career plans with members of the department early to make the most appropriate choice.

A student may elect as his/her first course in chemistry: CHEM010, 080 101, 102 or 131. Science majors normally begin with CHEM101. The decision to begin with either CHEM102 or 131 must be made in consultation with the department and may require taking a placement examination offered at the beginning of each semester. The department encourages students with two or more years of high-school chemistry to consider this option as it allows time for additional electives in the junior and senior years. The department publishes an undergraduate handbook, Chemistry at Clark, which provides additional information. Copies are available in the department office.

Students planning graduate study in chemistry are strongly urged to take CHEM270, 231 and/or additional advanced courses in mathematics, physics and biochemistry. All majors are encouraged to undertake independent research projects as a candidate for honors, directed study or through one of the departments summer research fellowships, and are eligible to do so following completion of CHEM102.

Honors Program

An honors program is offered for highly qualified and motivated majors. Students who want to enter this program must apply in writing to the department chairman prior to the beginning of their senior year. Participants are required to engage in an independent research project, participate in the department seminar program and pass a set of comprehensive examinations. Further information about the program can be obtained from the department chairman or the undergraduate handbook.

Chemistry Minors

The requirements for a minor in chemistry are:

- Introductory Chemistry I and II (CHEM101 and 102)
- Organic Chemistry I and II (CHEM131 and 132)
- Two additional courses in chemistry (numbered higher than 132), neither of which may be used to satisfy requirements for other majors, minors or concentrations.

Accelerated Degree Program

The department offers an M.A. degree in chemistry (focusing on biochemistry, organic, environmental, physical, inorganic or analytical chemistry) to undergraduate chemistry or biochemistry majors who complete an additional four courses and submit an acceptable thesis based on original research. Details of the program are available from the department office.

Graduate Program

The department offers programs leading to the degrees of master of arts and doctor of philosophy with specialization in various fields of chemistry. Emphasis is placed on tailoring programs to fit the specific needs and desires of the graduate student. To facilitate this goal, a committee of interested faculty works with each student to advise and review his/her progress in research work and course requirements (five courses from specific areas of chemistry for Ph.D. students). Up to one year's equivalent of teaching apprenticeship will be required of all candidates for advanced degrees. In addition to formal course work, all students must pass qualifying examinations and submit and defend a research thesis.

Ph.D. candidates must pass preliminary examinations and meet the department language requirement. For further details, students should consult the appropriate departmental publications. Graduate scholarships, teaching assistantships and research fellowships are available.

Courses

CHEM007 SCIENCE OF WEAPONS OF MASS DESTRUCTION/LECTURE

The science behind weapons of mass destruction will be discussed. Topics include low-technology explosives, nerve agents, biological agents and nuclear devices. In each case, introductory science concepts will be used to explain how the device or agent works. Historical examples will be reviewed such as the Oklahoma bombing, Wisconsin Army Research Lab bombing, Tokyo Sarin subway attack, World War I gas attacks, Kurdish gas attack, anthrax letters and Hiroshima/ Nagasaki. The technical basis for preventing the use of these weapons will also be discussed as will be the availability of information on the internet. Staff/Offered every year.

CHEM010 TOPICS IN CONTEMPORARY CHEMISTRY/LECTURE, LABORATORY

This course is designed for students majoring in a social science or the humanities and is intended to develop a qualitative feeling about chemistry as it relates to the modern world. Approximately half the course is concerned with the development of modern chemical concepts; the remainder deals with current societal problems such as nuclear weapons and reactors, air and water quality, drugs, food additives, polymers, poisons and others. In-class and final exams. Staff/Offered every year.

CHEM080 INTRODUCTION TO ENVIRONMENTAL CHEMISTRY

Focuses on three major areas of environmental concern: natural waters, soils and the atmosphere. Topics to be discussed will include: trace metals in the environment; the chemistry and geochemistry of natural organic matter; the dynamic behavior of organic contaminants in natural waters; microbiologically mediated reactions in aquatic systems; and the stratospheric aerosol and its impact on stratospheric chemistry. The laboratory phase focuses on sample collection and handling of environmental samples, the essentials of analysis of trace heavy metals, organics and dissolved gases in natural waters, and the analysis of metals and organics in solids and atmospheric samples. Mr. Nelson/ Offered every other year

CHEM101 INTRODUCTORY CHEMISTRY I/ LECTURE, LABORATORY

Designed to meet the needs of science majors and the prehealth program as well as those seeking a rigorous introduction to chemistry as part of their liberal-arts education. Introduces fundamental chemical concepts and applies them to a discussion of structure, bonding and reactivity of molecules. Knowledge of high-school algebra is necessary; high-school chemistry and physics are helpful, but not required. The laboratory teaches techniques of chemical experimentation and methods of chemical analysis. In-class and final exams, laboratory reports and quizzes. Staff/Offered every year.

CHEM101.2 INTRODUCTORY CHEMISTRY/FIRST-YEAR SEMINAR

Demonstrations, laboratory exercises and key experiments in the historical development of our understanding of chemistry will be used to introduce the topics normally covered in

Introductory Chemistry. Practical applications-such as preparation of contact explosives and pyrophoric materials will be used to illustrate chemical principals of thermodynamics, bonding, structure, aqueous reactions, behavior of gasses and intermolecular forces. Students are expected to do extensive text work outside of class on basic material. Prerequisite: minimum of one year of high-school chemistry with a grade of B or better. Lecture and laboratory. Exams, quizzes, laboratory reports, class preparations. Fulfills the science perspective.
Staff/Offered periodically

CHEM102.1 INTRODUCTORY CHEMISTRY II/ LECTURE, LABORATORY

Continues CHEM101 with a discussion of thermodynamics, equilibrium theory, kinetics, electrochemistry and the application of such theories to studies of structure and reactivity of molecules. The laboratory studies experimental techniques related to the lecture material. Prerequisite: CHEM101 or advanced placement. In-class and final exams, laboratory reports and quizzes. Staff/Offered every year.

CHEM102.2 INTRODUCTORY CHEMISTRY II, HONORS/LECTURE, LABORATORY

Continues CHEM101 on an advanced (honors) level. The materials covered include solution theory, chemical kinetics, equilibrium theory, thermodynamics, electrochemistry and nuclear chemistry for understanding the general principles underlying many chemical processes in the laboratory and in the environment. The laboratory studies phenomena related to the lecture. Prerequisite: CHEM101 and permission of the 101 instructor. In-class and final exams, laboratory reports and quizzes.
Staff/Offered every year.

CHEM131 ORGANIC CHEMISTRY I/LECTURE, LABORATORY

Discusses the chemistry of carbon and its compounds. The structures and reactions of related classes of organic molecules are systematically studied with emphasis on reaction mechanism and structural factors that affect reactivity. The laboratory concentrates on the preparation and physical, spectroscopic, and chemical properties of these classes of compounds. Prerequisite: CHEM102 or advanced placement. In-class and final exams, laboratory reports.
Ms. Erickson, Mr. Turnbull/Offered every year.

CHEM132 ORGANIC CHEMISTRY II/LECTURE, LABORATORY

Continues CHEM131.

CHEM142 ENVIRONMENTAL CHEMISTRY/ LECTURE, LABORATORY

Focuses on chemistry related to environmental problems, with emphasis on aquatic chemistry and aquatic and air pollution. Equilibrium theory is developed as a model for aquatic chemistry and chemical analyses of local aquatic systems are conducted in the laboratory according to EPA procedures. Prerequisite: CHEM102 or advanced placement. In-class and final exams, laboratory reports. Mr. Nelson/Offered every year.

CHEM222/CHEM322 STATISTICAL THERMODYNAMICS/LECTURE

An introduction to statistical mechanics, thermodynamics and chemical kinetics with applications to problems in chemistry and biochemistry. Mr. Bruschweiler/Offered periodically

CHEM231/CHEM331 ADVANCED ORGANIC CHEMISTRY/LECTURE

Provides a framework for students who wish to pursue an interest in organic chemistry beyond the level covered in CHEM131/132 by bridging the gap between material in standard elementary organic texts and the original literature. Advanced topics selected from structure and reaction mechanisms include stereochemistry and ionic, free radical, carbenoid and concerted reaction mechanisms. Prerequisite: CHEM132. Ms. Erickson/Offered every other year.

CHEM233/CHEM333 SYNTHETIC ORGANIC CHEMISTRY/LECTURE

The synthesis of organic compounds is discussed. Topics include the scope and limitations of general methods, mechanistic aspects and stereochemistry. Special emphasis is placed on the total synthesis of complex molecules from design of methods to execution. Prerequisite: CHEM231 or permission. Mr. Turnbull/Offered every other year.

CHEM235/CHEM335 NATURAL PRODUCTS/ LECTURE

The structure, biosynthesis and chemistry of selected secondary metabolites including steroids, terpenoids, alkaloids and actogenins of both terrestrial and marine origin are discussed. Biogenetic theory is used extensively to emphasize the simplicity within the complexity of those natural products. Structure determination by modern spectroscopic methods is also discussed. Prerequisite: CHEM132. Ms. Erickson/Offered every other year

CHEM236/CHEM336 ORGANOMETALLIC CHEMISTRY/LECTURE

Covers material related to compounds containing one or more covalent metal-carbon bonds. The material progresses from the traditional organometallics such as Grignards and cuprates through the transition metal and main group complexes. Emphasis is placed on the properties of organometallic compounds and mechanisms of their formation and subsequent reactions. Because of the continuing development of the field, use of the primary literature is stressed. A comparison of traditional organic and inorganic chemistry is developed through this intermediate field. Prerequisite: CHEM132 and 250 or permission of the instructor. Mr. Turnbull/Offered every other year.

CHEM242/CHEM342 NUCLEAR SCIENCE/ LECTURE

Covers the fundamentals of nuclear chemistry and physics: production, isolation, identification, structure and measurement of radioactive atoms. Prerequisite: permission of the instructor. Mr. Brenner/Offered periodically.

CHEM250/CHEM350 INORGANIC CHEMISTRY/ LECTURE, LABORATORY

Deals with theories of structure and bonding and their utility in explaining the chemistry of inorganic substances. Topics include: molecular orbital, valence bond, and crystal field theories of bonding and examples of the use of theories in explaining the structure and reactivities of inorganic molecules; acid base theory; spectroscopic methods; and kinetics. Emphasis is placed on the interpretation of structure and reactivity in terms of basic molecular and atomic parameters and on reaction pathways. Prerequisite: CHEM132 and 142 or 144. Mr. Greenaway, Mr. Turnbull/Offered every year

CHEM256/CHEM356 INORGANIC MATERIALS/ LECTURE

Deals with structure-property relationships in inorganic materials. The range of topics includes a survey of the factors controlling structure, lattice energy, prominent structure types and variations in properties as a function of composition. Discussion of analysis methods, synthesis and the prominent uses of these materials will be incorporated into the course. Pre- or corequisite: CHEM250 and 260 or PHYS131 or permission. Mr. Smith/Offered every other year.

CHEM260/CHEM360 PHYSICAL CHEMISTRY/ LECTURE, LABORATORY

Covers basic principles of quantum mechanics and their application for understanding fundamental aspects of atomic structure and molecular bonding. Requires a good working knowledge of calculus (entrance exam). The laboratory includes experiments in general physical chemistry. Prerequisite: MATH121 or 125 and CHEM132. Staff/Offered every year.

CHEM261/CHEM361 MAGNETIC RESONANCE THEORY/LECTURE

The theory of static and time-dependent interactions involved in magnetic resonance spectroscopy is presented. Energy states are defined on the basis of the time-independent Hamiltonian and reflect symmetry. The time-dependent terms in the Hamiltonian are used to develop descriptions for line-shape collapse and relaxation. Prerequisite: CHEM270. Mr. Jones/Offered every other year.

CHEM262/CHEM362 PHYSICAL CHEMISTRY II/LECTURE, LABORATORY

Continues CHEM260 covering fundamental aspects of physical chemistry from a molecular perspective. Topics that are covered include Boltzmann's law, statistical mechanics, thermodynamics, phase equilibria, ideal and nonideal solutions, chemical equilibrium, chemical kinetics and molecular spectroscopy. Prerequisite: CHEM260. Staff/Offered every year.

CHEM266/CHEM366 BIOMOLECULAR NMR/LECTURE

Covers theory and application of multidimensional nuclear magnetic resonance (NMR) spectroscopy for the study of structure and dynamics of biomolecules in solution. Mr. Bruschweiler/Offered periodically.

CHEM267/CHEM367 COMPUTATIONAL CHEMISTRY: ELECTRONIC STRUCTURE METHODS/LECTURE, LABORATORY

This course is designed to introduce the student to the electronic structure modeling methods, which are available to investigate the chemical phenomena. It will provide a hands-on experience using the electronic structure modeling software packages to study the properties of molecules and reactions. Topics will include molecular orbital theory and calculations on molecular energies and structures, energies and structures of transition states, bond and reaction energies, atomic charges, IR spectrum, NMR properties and reaction pathways. Prerequisites: CHEM262 or 270. Ms. Huo/Offered every other year.

CHEM270/CHEM370 QUANTUM CHEMISTRY/LECTURE

Essentially an introduction to quantum mechanics. Covers elementary quantum mechanical treatments of the structure of atoms and molecules. Prerequisite: CHEM262 or 264. Mr. Brenner/Offered every other year.

CHEM273/CHEM373 PRINCIPLES OF MOLECULAR MODELING

This course is intended mainly for advanced undergraduates and graduate students. The aim of the course is to introduce the principles and algorithms of molecular modeling and to illustrate how these algorithms can be used to study biochemical/biophysical phenomena. We will go over basic elements of classical molecular simulations, focusing of force fields, energy minimization, molecular dynamics and Monte Carlo. Prerequisite: CHEM260. Ms. Huo/Offered every other year

CHEM279/CHEM379 COMPUTER BIOCHEMISTRY

The course will provide a hands-on experience using computers to analyze chemical and biochemical systems. Students will be introduced to the use of relevant Web-based and commercial software packages. The course will meet one afternoon (3 hours) per week. The exact topics to be covered may vary from year to year as new software packages become available. Topics will include retrieval and analysis of DNA and protein sequence information from national databases; use of sequence information to identify homologous nucleic acids or proteins, design cloning experiments, and predict protein secondary and tertiary structures; simulations of protein dynamics and ligand binding; and using X-ray crystallography and NMR data to determine protein structure and dynamics. Prerequisite: BCMB271. Staff/Offered every year.

CHEM281/CHEM381 POLYMER SCIENCE/LECTURE

The physical chemistry of synthetic polymers is presented, including discussion of kinetic mechanisms of polymerization, molecular weight distributions, unperturbed dimensions, structure and conformation, viscosity, and dynamic properties. Specific experimental methods useful in polymer chemistry such as osmotic pressure, light scattering, gel permeation chromatography, viscoelastic response, NMR, and dielectric response also are reviewed. Prerequisite: CHEM262 or 264. Mr. Jones/Offered periodically

CHEM289/CHEM389 RESEARCH METHODS/LECTURE, LABORATORY

Deals with the application of analytical tools widely used in the laboratory. Topics include NMR, EPR, IR, Raman, UV-visible, mass and fluorescence spectroscopy, chromatography, electrophoresis, electrochemistry and other techniques. Emphasizes practical knowledge for data interpretation and instrument operation. Quarter-credit courses lasting four to five weeks are offered periodically. Prerequisite: CHEM262 or 264 or permission. Staff.

CHEM297 Honors
For majors seeking departmental honors in chemistry. Involves a laboratory research project and participation in department seminars. Offered for variable credit. Prerequisite: permission of the department chairman. Staff/ Offered every semester.

CHEM299 Directed Study
Individual investigations that involve laboratory and literature research. Offered for variable credit. Prerequisite: permission. Staff/Offered every semester.

CHEM380 Research Conference/Seminar
Consists of reports on research and discussions of recently published work. Guest lectures, staff, graduate students/Offered every semester.

CHEM399 Independent Study
Offered for variable credit. Staff/Offered every semester.

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in Chemistry. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

Students may also register for these courses as CHEM.

See Biochemistry
BCMB144 Bioanalytical Chemistry
BCMB228/BCMB328 Molecular Genetics
BCMB252/BCMB352 Bioinorganic Chemistry
BCMB264/BCMB364 Biophysical Chemistry
BCMB271/BCMB371 Biochemistry I
BCMB272/BCMB372 Biochemistry II
BCMB275/BCMB375 Protein Chemistry

COMMUNICATION AND CULTURE

Program Faculty

Fern Johnson, Ph.D., *Chair*
Gauvin Bailey, Ph.D.
Parminder Bhachu, Ph.D.
Marcia Butzel, Ph.D.
Eric Gordy, Ph.D.
Benjamin Korstvedt, Ph.D.
Matthew Malsky, Ph.D.
Sarah Michaels, Ph.D.
Timothy Shary, Ph.D.
Jaan Valsiner, Ph.D.

Program Overview

The communication and culture major is designed to engage students in focused inquiry into the cultural foundations of communication in its various forms. As a liberal-arts major, the program of study emphasizes the development of a conceptual framework for understanding the role of communication in both transmitting and creating culture through practices of verbal and nonverbal communication. Through an interdisciplinary approach, involving faculty from different fields of expertise in the humanities and social sciences, students study media, discourse and global influences and developments in communication. The curriculum covers historical and current topics, and the range of communicative forms considered includes visual and graphic images, everyday discourse, literary works, journalistic writing, music and material productions. Although not a production-oriented or preprofessional major, students have opportunities for practicum and internship learning. The faculty is committed to providing the type of sound critical and conceptual grasp of communication that is essential for intelligent participation and leadership in the various fields of communication.

For details regarding the major, students should consult the Majors' Handbook, which is available online, in the Communication and Culture Program Office and at the Academic Advising Center.

The major is organized into three paths of emphasis: (1) media dimensions, (2) discourse dimensions and (3) global dimensions, which includes courses in both media and discourse studies that emphasize some aspect of global communication. With the exception of the introductory course (COMM101), most courses are cross-referenced with the departments in which they originate.

Major Requirements

(11 course units minimum)

Each student selects, in consultation with her or his adviser, a path of emphasis from the three available options. Within that path, students concentrate their elective courses and build further specialization through choices of advanced seminars and internships. No exceptions will be made to the structure listed below.

1. COMM101 Communication and Culture, 1 unit
2. Seven elective courses, 7 units
   - Minimum of four and maximum of five must be in path of emphasis
   - Minimum of three must be at the 200 level
   - Maximum of two practicum courses, which must be in an approved sequence
3. One Integrative Seminar (200 level), 1 unit
4. Approved internship or project, 1-2 units
5. Senior Capstone Seminar or Project in path of emphasis, 1-2 units (Honors thesis option for qualified students.)

Students must complete COMM101 before taking the integrated seminar.

Course prerequisites are listed for specific courses and may be different for communication and culture majors than for students taking the course in the department from which it is cross-referenced. Students should consult semester schedules carefully to determine prerequisites.

Students must earn a grade of C or better in all courses contributing to the major program of study.

For more information about the communication and culture major, call 508-793-7180.

Communication and Culture Minors

The minor in communication and culture is designed to provide concentrated study in one of the three paths. The minor requires a minimum total of six course units as follows.

1. COMM 101 Communication and Culture
2. Five additional COMM courses:
   - Three courses in one path of emphasis
   - One course in each of the other paths of emphasis
   - Minimum of two 200-level courses
   - Maximum of one practicum course

Students must earn a grade of C or better in all courses contributing to the minor.

Courses

Communication and Culture is an interdisciplinary program. For more details about any of the following approved-for-credit Communication and Culture course offerings, see the catalog listing under the participating home department.

Introductory Course

COMM101 COMMUNICATION AND CULTURE

Examines the ways in which communication creates and represents ideology, social orders and cultural identities. Emphasis is on critical analysis of communication in contemporary society. Subjects include culture-based metaphor, nonverbal communication, advertising, print media and television. Staff/offered every year

PATH 1: Electives in Media Dimensions

COMM145 DO-IT-YOURSELF MEDIA

This course explores the various developments and formations of DIY (do-it-yourself) media. By way of affordable, easy-to-use media technology, nonprofessional producers are making and distributing videos, music, publications and Web sites that reflect their cultural and political identities. Through examining a range of DIY media, students learn about these various identities, as well as the ethics of DIY, its aesthetic trends and its creators' techniques of production. Staff/Offered periodically

COMM221 MEDIA POLICY AND DEMOCRACY

In this course, students will look at the development of media regulation in the United States, starting with the founding of the Federal Communications Commission up to its most recent decisions on media policy. In addition to discussing the ways in which the legislation specifically addresses free-market competition, public interest and freedom of speech, we explore society's understandings of these issues and how they are shaped by policy. Students will also focus on the methods of the public-access television and radio movement in their attempt to produce media that serves public interest and gain some control of the corporately dominated airwaves. Staff/Offered Periodically

See Art History

ARTH010 From the Stone Age to Our Age

See English

ENG205 Culture and the News

See Geography

GEOG257 Internet Geography

See History

HIST211 American Consumer Culture

See Music

MUSC011 Music as Culture
MUSC012 Pop Music in USA
MUSC103 20th-Century Music
MUSC142 Interactive Music Programming and Composition Studio
MUSC210 History of Music Seminar

See Screen Studies

SCRN010 Introduction to Screen Studies
SCRN122 History of American Broadcasting and Electronic Media
SCRN123 Factual Film and Television
SCRN171 Storytelling through Video
SCRN214 Social Issues Documentary
SCRN207 Digital Editing/Production in Video
SCRN261 Critical Perspectives of T.V. Culture

See Sociology

SOC135 Media and Society

See Studio Arts

ARTS121 Intermediate Photography
ARTS125 Graphic Design Projects
ARTS208 Typography
ARTS209 Introduction to Interactive Design
ARTS250 Photography Studio
ARTS254 Graphic Design Studio
ARTS278 Video Production Studio

PATH 2: Electives in Discourse Dimensions

COMM150 DISCOURSE AND CULTURAL STUDIES/FIELD RESEARCH

This course studies the nature of human communication-both in language and other sign systems (e.g., cultural artifacts, media and social interactions)-within and across diverse cultures and social institutions. It focuses on tools for analyzing communication in context with reference to its psychological, social, cultural and political implications. Ms. Michaels/Offered every year

See Comparative Literature

CMLT134 Latino Literature and Media Arts

See Education

EDUC112 Transformative Schooling: Culture, Community, Education and Society

See English

ENG114 American Talk
ENG196 Oral Advocacy
ENG202 Feature Writing
ENG204 Writing for Magazines
ENG215 Language and Culture in the United States
ENG249 Signs/Crossroads: Semiotics
ENG276 Ethnic America: Literary and Theoretical Perspectives
ENG279 Fictions of Asian America
ENG294 History of the English Language

See Philosophy

PHIL242 Philosophy of Language

See Psychology

PSYC158 Discourse, Subjectivity and the Self
PSYC193 Psychology, Communication and the Self
PSYC247 Theoretical Models of Communication in Psychology
PSYC254 Gender Development and Language
PSYC268 Communicative Development

See Theater Arts

TA212 Actor as Thinker

PATH 3: Electives in Global Dimensions

COMM246 Global Communication and the Spaces of Cultural Production

This course will map the economic, political and spatial relationships that constitute and facilitate the development of global communication networks, as well as consider the configuration of local cultures and identities in dialogue with these global structures.

See Art History

ARTH159 Latin-American Art
ARTH160 The Arts of Asia
ARTH161 The Arts of Islam

See Comparative Literature

CMLT130 The National Imagination

See Foreign Languages

FREN129 Media Workshop in French
FREN140 Exploring the Francophone World
FREN137 Studies in Contemporary French Culture
FREN249 The French-Speaking World

See Geography

GEOG017 Culture, Place and the Environment

See Psychology

PSYC156 Cultural Psychology

See Sociology

SOC161 Cultural Identities and Global Processes
SOC255 The Creation of Nationalisms, Nationalist Culture and Symbols
SOC260 Roots and Routes

Integrative Seminars

The integrative seminars are courses at the 200 level, which treat a particular topic through different disciplinary perspectives or that bring together two or more topics from different domains of communication and cultural analysis. These seminars are listed separately below. At least one integrative seminar is offered each semester and new topics may be added. Interested students may petition the director of the program to substitute a second integrative seminar for an elective course.

Integrative Seminar Courses

See Art History

ARTH216 Architecture and Democracy
ARTH232 Converging Cultures in the Age of Discovery

See English

ENG257 Language at Issue
ENG252 Cultural Discourses of Advertising

See Music

MUSC200 Soundtracks

See Psychology

PSYC251 Language Development

See Sociology

SOC231 Sociology of Culture
SOC250 Culture, Consumption and Class in Local and Global Contexts

Senior Capstone

The senior capstone in communication and culture requires that each student participate in original research or creative activity or produce an individual project related to some aspect or his or her path emphasis. At the end of the junior year, majors receive information about options available for the senior capstone. Based on this information, each student selects one of the senior capstone seminars, proposes an independent study project or, if qualified, proposes an honors thesis project. All projects and theses must be supervised by a member of the communication and culture faculty. For honors theses, a second faculty member, who will serve as an evaluator, is selected through a consultation process between the students and his or her thesis adviser. Information regarding honors theses, which are yearlong projects, is contained in the Majors' Handbook.

Courses that have been offered as senior capstone seminars are listed below. New courses are added from time to time. Note that a student who takes a designated capstone seminar earlier than the senior year may count this course toward major elective requirements but may not use the course to fulfill the capstone requirement.

Senior Capstone Courses

See English
ENG295 Gender and Discourse

See Music
MUSC200 New Media Theory and Practice

See Psychology
PSYC276 Advanced Topics in Cultural Psychology (Topic Dependent)

See Screen Studies
SCRN284 Film as Narration
SCRN288 Gender and Film

See Sociology
SOC273 Effects of Mass Media
SOC294 Global Ethnographies

COMPARATIVE LITERATURE

Program Faculty

Kenneth Hughes, Ph.D., *Program Director*
Paul Burke, Ph.D.
Marvin D'Lugo, Ph.D.
William Ferguson, Ph.D.
Everett Fox, Ph.D.
Beth Gale, Ph.D.
Dorothy Kaufmann, Ph.D.
Gary Overvold, Ph.D.
Walter Schatzberg, Ph.D.
Michael Spingler, Ph.D.
Daniel Jiro Tanaka, Ph.D.

Adjunct Faculty

Martyn J. Bowden, Ph.D.
Marcia Butzel, Ph.D.
SunHee Kim Gertz, Ph.D.

Program Overview

Comparative literature is a wide-ranging, multicultural program of studies in poetry, prose, drama, film and related arts. Housed in the Foreign Languages and Literatures Department, the program is by nature interdisciplinary and has strong ties with other departments in the University. In addition to the courses offered by the department in comparative literature and literatures in foreign languages, the student is encouraged to take courses in English, history, philosophy, and visual and performing arts. One of the special aspects of the program is the emphasis on developing a practical and critical approach to texts. This may take the form of play production, seminars in translation of lyric poetry and drama, and supervised work in contemporary critical theory (i.e., relations between text and performance, spectator positioning and reader response).

Major Requirements

1. Four courses beyond the intermediate level in one or more foreign languages. (An intermediate-level course in a second foreign language may be used in certain cases toward the fulfillment of the language course requirement.)

2. Four courses in comparative literature, at least two of which should have a strong theoretical component.
3. Five related courses, to be selected by the student in consultation with a faculty adviser. One of these must be CMLT130 The National Imagination.

Courses

CMLT130 THE NATIONAL IMAGINATION

This course explores the concept of a national community as constructed and critiqued through literary and cinematic narratives as well as other cultural texts. Special emphasis is given to the ways in which national languages have been used to promote the sense of cultural continuity and identity for various national communities. Variable content. This is a team-taught course with national focus changing depending upon the participation of particular members of the foreign languages faculty. Staff/Offered every year.

CMLT150 JOURNEYS WITH HYPHENATED AMERICANS: EMERGING IDENTITIES, EVOLVING CULTURES/FIRST-YEAR SEMINAR

The American "melting pot," once a national myth, has now become a cultural cliché often derided by contemporary ethnic communities. Forged largely around the migration of Europeans to the United States in the early 20th century, that fiction of national identity has since been rewritten and transformed through works that reflect the experiences of men and women who have come from non-European backgrounds: Native Americans, African-Americans, Latinos, and Asian-Americans. This seminar traces some of the shifts in these stories of migration in both fiction and film, in works ranging from the uplifting autobiographies of European immigrants at the beginning of the 20th century to Robert Rodriguez's irreverent Chicano movie, Spy Kids, at the century's end. In debunking the melting pot, writers and filmmakers have produced a highly imaginative and yet subversive counter-mythology that forces us to reconsider many of the commonplaces about American cultural identity. Fulfills the verbal-expression requirement. Mr. D'Lugo/Offered periodically

CMLT152 LYRIC POETRY: SONGS OF THE SELF/FIRST-YEAR SEMINAR

Through a study of selected lyrical works drawn from many different centuries and a variety of cultures, this seminar investigates the deepest roots of human self-expression, the power of metaphor and the beauty of image-making in words. Texts are taken from the 20th-century Anglo-American tradition (Moore, Auden, Eliot, Roethke, Levertov); or from certain older English-language contexts (Wyatt, Smart, Coleridge); as far as possible, texts from non-English speaking cultures are presented both in literary translation and in the original to give the English-speaking student insight into the cadences of the other language. Students with knowledge of a foreign language are encouraged to do comparative work in that language and in English. Students write several critical essays over the semester on class-readings and individually assigned projects. Fulfills the verbal-expression requirement. First preference for enrollment will be given to students in the International Studies Stream. Others will be admitted on a space-available basis. Mr. Ferguson/Offered periodically

CMLT155 STUDIES IN ITALIAN FILM: NEOREALISM/LECTURE, DISCUSSION

Explores the political, cultural and aesthetic role of Neorealist cinema in Italy. The linkage of film, history and nationality during the years 1942-1951 leads to broader questions concerning the relations between art and politics in fascist, Resistenza and contemporary Italian culture. In addition to film texts and selections from the critical debate over Neorealism in film and cultural history, we consider both precursors and inheritors of Neorealist cinema. Ms. Butzel/Offered every other year

CMLT181 THE LITERATURE OF MODERN SPAIN IN TRANSLATION/LECTURE DISCUSSION

Readings representing the major authors and trends in the literature of Spain in the 19th and 20th centuries. Emphasizes the realist novels of Galdós and Clarín in the 19th century; the philosophical novels of Unamuno and Pérez de Ayala, poetry and theater of Lorca and the postmodernist narratives of Goytisolo in the 20th century. Mr. D'Lugo/Offered periodically

CMLT205 THE PLAY AND ITS STAGES/SEMINAR, WORKSHOP

A critical approach to the dramatic text based on historical and material conditions of performance. Considers the changing ways that meanings are made through styles and conventions of performance (including set, costume, mask and vocal delivery), which are specific to historical and cultural moments. Playwrights considered may include Sophocles, Shakespeare, Racine, Molière, Chekhov, Ibsen, Brecht, Genet and Beckett. Scene work. Mr. Spingler/Offered periodically

CMLT206 LANGUAGES OF THEATER/SEMINAR, DISCUSSION

A study of the way meanings are made in theater through structure and sign. Examines the function of nonverbal communication in theater, especially mask, gesture, movement and sound. Plays may include works of Euripides, Shakespeare, Cocteau, Apollinaire, Jarry, Genet and Pinter. Critical works read include Artaud's "The Theater and its Double," Brook's "The Empty Space" and Grotowski's "Towards a Poor Theater." Scene work. May be taken as a companion course to CMLT205. Mr. Spingler/Offered periodically

CMLT288 ART OF THE CITY: PARIS AND NEW YORK/DISCUSSION

A comparative structural and cultural analysis of two urban designs, Haussmann's Paris and Olmsted's New York, the visual representation of the two cities and the literary interpretation of the cities. The cities will be considered as theaters in which cultural meanings are produced through spatial composition and performances in the set. Among the questions to be explored is the matter of cultural kinships and differences between France and the United States. Prerequisite: Permission of instructor. Mr. Spingler/Offered periodically

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in Comparative Literature. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See Ancient Civilization

CLAS120 The Epic Journey

See Foreign Languages

FREN112 Fairy Tales of the World
FREN160 French Culture Seen through Film: Jean Renoir
FREN211 Coming of Age in the French Novel
FREN256 Lessons Learned: Education in the 20th-Century Novel
GERM188 The Culture of the Weimar Republic in Literature, Film and the Arts
JAPN180 Japanese Culture and Literature in Translation/Lecture, Discussion
SPAN134 Latino Literature and Media
SPAN246 Studies in Spanish Cinema
SPAN248 Studies in Latin-American Cinema
SPAN249 Studies in Hispanic Cinema

See English

ENG150 Introduction to Medieval Literature
ENG249/ENG349 Signs and Crossroads
ENG250/ENG350 Medieval Literature
ENG254/ENG354 Still Spaces-East Meets West: Contemplative Practice in the Classroom
ENG278/ENG378 Modern Political Literature: Class, Race, Gender, Ethnicity
ENG294/ENG394 History of the English Language

See Jewish Studies

JS117 Introduction to the Hebrew Bible I: Narrative And Law
JS118 Introduction to the Hebrew Bible II: Prophecy and Poetry
JS123 The Midrashic Tradition

See Philosophy

PHIL210 Modernism in Philosophy, Literature and the Arts

See Screen Studies

SCRN121 International Film Art Movements
SCRN288 Gender and Film

COMPUTER SCIENCE

Program Faculty

Laurence E. Morris, Ph.D., *Chair*
Natalia Sternberg, Ph.D., *Acting Chair*
Jerry Breecher, Ph.D.
Arthur Chou, Ph.D.
Frederic Green, Ph.D.
Li Han, Ph.D.
David Joyce, Ph.D.
Ping Xuan, Ph.D.

Program Overview

The department views computer science as an academic discipline firmly within Clark University's liberal-arts tradition, with an emphasis on the science of designing software and hardware. Courses emphasize concepts and principles; at the same time, the program closely follows ACM guidelines for university computer science. The major provides preparation for a variety of career paths, both inside and outside the academic community. Two courses in computer programming and one course in discrete mathematics serve as general introductory courses. Four intermediate courses (core requirements) expose the fundamental principles of computer science. One year of calculus is required and should be completed as soon as possible, if at all possible by the end of the sophomore year. Beyond this, a series of elective courses is offered in which applications and advanced topics are explored. Further information, including expanded course descriptions, can be found on the department's Web site.

Declaring a Major

The department has a system of advising to assist students with their course selections. Department faculty are eager to help students select courses. A major must be declared no later than the second semester of the sophomore year; earlier declarations are encouraged. Students should choose an academic adviser from the department faculty as early as possible or at least by the time the major is declared.

Entering students enrolled in first-year seminars in programs outside mathematics, computer science or the natural sciences are especially encouraged to make a prompt choice of an unofficial secondary adviser in the Computer Science Department, who will be able to supplement the advice offered by their primary adviser.

Major Requirements

Introductory Courses

These courses are prerequisites for the advanced courses and should be taken as soon as possible.

CSCI101 Computer Programming I
CSCI102 Computer Programming II
MATH114 Discrete Mathematics

Calculus

One year of calculus.

MATH 120,121 Calculus I, II or
MATH124, 125 Honors Calculus I, II.

This sequence should be complete as soon as possible; we recommend by the end of the sophomore year.

Core Courses

CSCI140 Assembly Language and Computer Organization
CSCI160 Data Structures and Algorithms
CSCI170 Analysis of Programming Languages
CSCI180 Automata Theory

Advanced Courses

Four courses in computer science at the 200 level, not including internships or reading courses except with departmental approval.

(Total 13 courses.)

Suggested Program Sequence

It is important to begin the computer science program early. An ideal program sequence begins with CSCI101 Programming I in the fall of the first year, followed by CSCI102 Programming II and MATH114 Discrete Mathematics in the spring semester. A calculus sequence (MATH120, 121, or MATH124, 125) should be taken starting in the first year if possible, and in no case later than the second year. The four core courses should be taken as soon as possible.

The three mathematics courses required for the computer science major are meant to ensure that all students will have the mathematical tools, which are indispensable for the study of computer science. MATH114 is a direct or indirect prerequisite for essentially all intermediate and advanced computer-science courses, and should be taken as early as possible by any student who may be interested in computer science. If it is not possible for a student to take both MATH114 and Calculus during the first year, preference should be given to MATH114.

Honors Program

A major who maintains at least a 3.2 average (4.0 scale) in courses required for the major may apply for the departmental honors program. A student's application in writing must be directed to a prospective honors adviser or the department chair by the end of the student's junior year. Honors may be achieved in one of two ways: (1) a unified four-course sequence as a senior (some parts of which may consist of directed readings) followed by a comprehensive examination; or (2) an honors project to be presented at an oral defense or at a department seminar. This project may be an independent or joint research thesis, or it may be a programming project. Supporting course work may be required. Students interested in pursuing the honors program should consult their department adviser. The student registers for CSCI299, Sec. 8, for course credit for an honors thesis. Upon satisfactory completion of the program, the department may recommend graduation with honors, high honors or highest honors.

Computer Science Minor

A minor in computer science consists of six courses: CSCI101/CSCI102 Computer Programming I and II, and four other courses in Computer Science (although MATH114 Discrete Mathematics may substitute for one), at least one of which is at the 200 level.

Here are some sample minors in computer science:

- Software sequence: CSCI101-102, MATH114, CSCI160, 170, and 250.
- Theory sequence: CSCI101-102, MATH114, CSCI160, 180, 270.

Courses

CSCI099 COMPUTERS IN OUR WORLD/LECTURE, LABORATORY

An introduction to computer technology with an emphasis on social implications where applicable. Lectures will survey topics such as history of computer development from number-crunchers to information-management systems, how computers work, networking protocols including the Internet and World Wide Web. Additionally, the course will explore data representation and programming. Students will learn binary algebra and develop two or three short programs. A laboratory component will give students hands-on experience with software applications which demonstrate the possibilities enabled by current computer technology. There are no prerequisites; no prior computer experience is necessary. Not applicable to the major requirements in computer science. Staff/Offered periodically.

CSCI101 COMPUTER PROGRAMMING I/LECTURE, LABORATORY

An introduction to computer programming using Java. The theme is the top-down approach to problem solving. Algorithms are developed for the solutions to stated problems, then translated into Java and tested on the computer. For the laboratory component, students are expected to write approximately seven programs throughout the course. Specific topics include decision making, logic design, iteration, arrays, text files and records. Satisfies the formal-analysis requirement. No prerequisites. This course is a prerequisite for most higher-numbered computer-science courses. Mr. Chou, Mr. Green, Ms. Han, Mr. Joyce, Staff/Offered every semester

CSCI102 COMPUTER PROGRAMMING II/LECTURE, LABORATORY

A continuation of CSCI101, covering such topics as string manipulation, data files and their processing, collections, and dynamic data structures such as linked lists, stacks, queues and binary trees. The usage and implementation of recursion also is discussed. Approximately six programming projects are assigned as the laboratory component of the course. These projects entail the design and implementation of programs involving the topics mentioned above. Prerequisite: CSCI101. Mr. Chou, Mr.Green/Offered every semester

CSCI140 ASSEMBLY LANGUAGE AND COMPUTER ORGANIZATION/ LECTURE, LABORATORY

Covers fundamentals of assembly language programming such as data representation, the instruction set, addressing mode, macros, procedures, input and output facilities, assembler and linker, introduction to logic circuits and the basic machine organization of conventional computers. The goal is to understand how a computer performs various tasks that are completely hidden from the user in a high-level language. For the laboratory component, students will write several programs in assembly language. Prerequisites for this course require a grade of C or better. Prerequisite: CSCI102. Mr. Chou, Mr. Breecher/Offered every year

CSCI160 DATA STRUCTURES AND ALGORITHMS/ LECTURE, DISCUSSION, LABORATORY

Deals with advanced data structures such as sets, trees and graphs, together with the algorithms to manipulate them. Applications to searching and sorting are discussed. Topics include: analysis of algorithms, general trees, balanced trees, priority queues, hash tables, merge-sort, quick-sort, radix sorting and searching, and elementary graph algorithms. Involves a fourth-hour problem-solving session. Programming projects are assigned for the laboratory component. Prerequisites for this course require a grade of C or better. Prerequisites: CSCI102 and MATH114.
Mr. Chou, Mr. Green/Offered every year

CSCI170 ANALYSIS OF PROGRAMMING LANGUAGES/LECTURE

Deals with the issues of the design and implementation of programming languages from both the syntactic and the semantic point of view. Topics include: the representation of rules of syntax, using context-free grammars, parsing, semantic constructs, control structures, implementation of procedures and parameters, implementation of recursion and an introduction to the organization of compilers. A typical group term project may be to design and implement a compiler or interpreter for the actual implementation of some language. Prerequisites for this course require a grade of C or better. Prerequisites: CSCI102 and MATH114. Mr. Joyce, Mr. Green/Offered every year

CSCI180 AUTOMATA THEORY/LECTURE, DISCUSSION

Studies the abstract models of machines and languages recognized by them and introduces the concept of computability. Begins with a review of sets, functions and relations, then continues with finite automata and regular languages, pushdown automata and context-free grammars, grammar transformations and normal forms, and finally the mathematical model of modern computers: Turing machines and computable functions. Some examples of unsolvable problems, such as the halting problem, will be discussed. Involves a fourth-hour problem-solving session. Prerequisites for this course require a grade of C or better. Prerequisites: CSCI102 and MATH114.
Mr. Chou, Mr. Green, Mr. Joyce/Offered every year

CSCI201 PROSEMINAR IN COMPUTER SCIENCE/ SEMINAR

The presentation of topics in computer science by and for senior undergraduates. These presentations acquaint students with diverse subjects, introduce them to researching known topics and give them practice in presenting material to their peers. Faculty members will also present some research topics. Possible areas the topics may be drawn from might include robotics, networking, NP complete problems, neural networks, expert systems, parallel algorithms. Prerequisites for this course require a grade of C- or better. Prerequisites: CSCI160 and CSCI170. Staff/Offered periodically

CSCI210 ARTIFICIAL INTELLIGENCE/ LECTURE, LABORATORY

Focuses on the fundamental ideas of artificial intelligence and programming in Lisp. Topics included are knowledge representation schemes, problem representation through explicit models, search techniques, analogy and pattern recognition, natural language parsing and planning. Students implement the above ideas through computer programs written in Lisp. Language instruction is provided in Lisp (or Prolog), although no prior knowledge of these programming languages is assumed. Prerequisites for this course require a grade of C- or better. Prerequisite: CSCI160. Mr. Xuan/Offered every year

CSCI215 OPERATING SYSTEMS/LECTURE, LABORATORY

Studies the structure, performance and design of operating systems. Topics include concurrency, deadlocks, scheduling and memory management. Various operating systems may be examined and compared. Students will design and implement parts of operating systems. Prerequisites for this course require a grade of C- or better. Prerequisite: CSCI160. Mr. Breecher, Mr. Green/ Offered every other year

CSCI220 DATABASE MANAGEMENT AND SYSTEMS DESIGN/LECTURE

An advanced course on the realities of database technology. Emphasizes the goals of database management: performance, data integrity, future compatibility and versatility. The concept of the data model is examined and a specific database is discussed. Concentrates on database design and specification. Prerequisite: CSCI160. Mr. Chou/Offered every other year

CSCI230 COMPILER DESIGN/LECTURE, LABORATORY

A continuation of CSCI180 Automata Theory. It uses the automata and grammars introduced in CSCI180 to design translators (compilers) for programming languages. Topics include lexical analysis, top-down parsing, bottom-up parsing, syntax-directed translation, type checking, run-time environment, code generation and an introduction to code optimization. A typical term project is to write a compiler for a simple programming language such as a subset of C or Pascal. Prerequisites for this course require a grade of C- or better. Prerequisites: CSCI160 and CSCI180. Mr. Chou, Mr. Green/Offered every other year

CSCI240 COMPUTER ARCHITECTURE/LECTURE

A study of the design of computers. Topics include the design of combinatorial and sequential circuits, design methodology of a basic computer, central processor organization, microprogramming, memory organization, input-output organization and arithmetic processor design. As time permits, further topics, such as vector and parallel processing, are discussed. A functional, logical (theoretical) approach is adopted. PHYS219 Electronics Laboratory is recommended so that students gain hands-on experience with computer chips. The science of design is stressed together with the existing machines. Prerequisites for this course require a grade of C- or better. Prerequisite: CSCI140. Mr. Breecher/Offered every other year

CSCI250 SOFTWARE ENGINEERING/SEMINAR

Students consider the life cycle of large software projects, beginning with the elicitation and definition of users' requirements and continuing through software design, documentation, coding, testing and maintenance. Topics include: modularity, coupling, cohesion, transformational and transactional structures and testing strategies. Working in teams, students gain practical experience developing software to solve concrete problems. Prerequisites for this course require a grade of C- or better. Prerequisites: CSCI160 and CSCI170. Mr. Breecher, Ms. Han, Mr. Xuan/Offered periodically

CSCI260 COMPUTER GRAPHICS

This course provides an introduction to computer graphics with an emphasis on the underlying theory and on the use of the graphics library OpenGL as application programming interface (API). We will study the theoretical foundations and algorithmic issues in class and will learn and use OpenGL as the particular API for writing graphics programs in programming assignments. Prerequisites for this course require a grade of C- or better. Prerequisites: Data Structures and Algorithms (CSCI160) and familiarity with calculus and matrix algebra (MATH131).

CSCI265 ROBOTICS/LECTURE, LABORATORY

This course presents an introduction to robotics. In addition to algorithmic issues, the course will cover related engineering and system topics and discuss current research problems. Topics covered include hierarchical paradigms, biological foundations, robot actuators and sensors, sensing techniques, kinematics, and dynamics, control, localization and motion planning. Students will get hands on experience through computer simulation or physical experiments with robot project component kits. Prerequisites for this course require a grade of C- or better. Prerequisites: Data Structures and Algorithms (CSCI160) and familiarity with calculus and matrix algebra (MATH131). Students should be interested in geometric concepts and algorithms and have good programming skills. Ms. Han/Offered every other year

CSCI270 THEORY OF COMPUTATION/LECTURE

Studies the nature and formal models of computation (by computers), its power and limitation (computability versus uncomputability), the computational complexity of various problems and the applications in logic and computer science. Turing machines, general recursive functions and other standard models of computation are introduced. Other aspects of recursion theory, such as unsolvable problems and recursively enumerable languages, are introduced. We also address the more practical question, "What is an efficient program?" in an introduction to modern complexity theory. Prerequisites for this course require a grade of C- or better. Prerequisite: CSCI180. Mr. Chou, Mr. Green/ Offered every other year

CSCI280 COMPUTER NETWORKS/LECTURE

Provides an introduction to the theory and practice of the design of computer and communications networks. The TCP/IP Model will be used as the framework with the course progressing through the physical, data link, network and transport layers. Analysis of network topologies and protocols, including performance analysis, is treated. Current network types including local-area and wide-area networks are introduced, as are evolving network topologies. Laboratory exercises include the design and implementation of projects such as simulation of the network/transport layer functions, routing, congestion control, an Ethernet controller, applications using TCP/IP or remote procedure calls. There may be extensive network programming assignments. Prerequisites for this course require a grade of C- or better. Prerequisites: CSCI140 and CSCI160. Mr. Breecher/Offered every year

ECONOMICS

Program Faculty

Maurice Weinrobe, Ph.D., *Chair*
Sang Hoo Bae, Ph.D.
Daniel Bernhofen, Ph.D.
John Brown, Ph.D.
Myles Callan, Ph.D.
Jacqueline Geoghegan, Ph.D.
Wayne Gray, Ph.D.
Amy Ickowitz, Ph.D.
Attiat Ott, Ph.D.

Emeriti Faculty

Howard W. Nicholson, Ph.D.
Frank Puffer, Ph.D.
Roger C. Van Tassel, Ph.D.
E.C.H. Veendorp, Ph.D.

Program Overview

Economics offers a flexible yet consistent framework for understanding key issues facing the economy and society—from globalization of international trade and finance to global warming. The major and minor in economics offer students an opportunity to learn the key elements of this framework and provide them with ample opportunities to apply it to a wide range of key economic issues. The Ph.D. program enriches the intellectual community in economics with opportunities for undergraduates to get to know advanced students in economics and for students to take advanced courses in statistics and economic theory not typically available to undergraduate majors.

Since it first attempted to explain the growth and wealth of nations more than two hundred years ago, economics has evolved into a modern social science that combines a coherent analytical framework with careful analysis of information to understand how economies work and develop, and the consequences of economic policies and policy change. It applies the basic logic of individual choice and market forces to explore the tradeoffs inherent in addressing many of the key concerns on today's agenda: ensuring rising living standards in developed and developing countries, assessing the impacts of international trade, and identifying the wisest use of scarce environmental resources, among many others.

The major in economics builds on the expertise the student develops in the first two semesters of courses. It combines a solid background in the core of economic analysis with a wide range of applied courses that investigate the most important fields of economics and many important topics. The capstone experience, honors program, internships and study abroad offer opportunities for majors to acquire research experience, apply economics in government or business and deepen their understanding of economic issues.

The economics major also provides skills that are highly valued in a number of careers and graduate programs. The economics major emphasizes developing skills of careful thinking and analysis in combination with the application of those skills in actual settings. Law schools welcome the background economics provides in logical thinking. Government agencies and graduate programs in public policy or economics appreciate the systematic approach to understanding the economy offered by economics. Business schools and businesses find the facility the economics major acquires in analytical thinking and quantitative methods of analysis attractive.

Major Requirements

The requirements for the major include 12 courses overall: five required core courses in quantitative methods and economic theory; five elective courses in economics; and two related courses in fields outside of economics. A course including a capstone experience must be taken during the senior year. Majors must have a grade-point average of 2.0 for the 10 required economics courses.

Upon declaring the major, students also choose an adviser from among the economics faculty. Students are encouraged to use their initial meetings with their adviser to develop a program that meets their interests and goals.

For example, a student concerned about environmental change and developing countries may combine course work in Environmental Economics (ECON157 or ECON257) with Population Economics (ECON247) and Economic Development (ECON128 or ECON 228). Students planning on graduate work in economics should consult their adviser early on. Graduate work in economics demands strong mathematical skills, including calculus and other courses in math.

The Undergraduate Economics Handbook provides many detailed suggestions on how students can tailor their major to their interests and career goals including a worksheet for planning the program in the major.

Core Courses

The five core courses provide all students with a common language and a common set of skills that ensure the student is prepared for study of the subfields of economics in the 100- and 200-level elective courses. They also enhance the student's understanding of economic analysis. ECON010 provides an introduction to the economic way of thinking using a comparative approach. First-year students may also elect to take a first-year seminar course (ECON100) that provides an in-depth look into key economic issues such as international economic relations or population in place of ECON010. Either of these courses is the prerequisite for all 100-level courses and ECON011. ECON011 provides students with an overview of the key analytical tools of economics and is the prerequisite for all 200-level courses.

Courses in intermediate microeconomics (ECON205) and intermediate macroeconomics (ECON206) deepen the major's understanding of the economic analysis of individual and firm choices, markets, and the economy as a whole. Course work in statistical analysis (ECON160) acquaints students with how information can be used to confront hypotheses suggested by basic economic analysis. A minimum grade of C- must be earned in each of the required core courses.

Economics Electives

The five economics electives and the two related courses provide the student with the opportunity to pursue more focused interests within the major. Courses at the 100-level, which are open to all students who have completed ECON010 or ECON100, generally provide students with an in-depth look at the institutions and policies important in understanding economies. Courses at the 200 level, which require prior completion of ECON011, provide a more comprehensive introduction to the literature of economic analysis in an area. Economics majors are required to take at least three of their electives at the 200 level.

Elective offerings include such fields of economic inquiry as international trade and finance, economic development, public budgetary and tax policy, monetary economics and labor, as well as topical courses in areas such as health economics, comparative economics (Asia and Europe), environmental economics, the economics of population, economic history and the economics of sport.

Students are encouraged to group their electives around their own particular interests. Brochures available from the department provide detailed suggestions on the appropriate economics electives and related courses for students with interests in international economics, development and the environment.

Related Courses

Economics majors must also complete two courses that are offered outside of the economics department, yet are related to the goals of the economics major. Some courses will satisfy the related course requirement under all circumstances. They include math courses at the level of calculus or above, management courses in accounting, finance, management and information systems (MIS) and operations management, computer-science courses and some courses in economic geography.

Other courses can also meet this requirement provided they complement the program a student has developed. For example, many courses in international development would provide an important background for a student who has taken Economic Development (ECON128 or ECON228), or a student with an interest in government tax and budget policy may want to take additional courses in government. The departmental faculty adviser can provide suggestions for related courses of this type.

Capstone

Taken during the student's final year in the major, the course that fulfills the capstone requirement offers an opportunity for the student to draw upon the skills and background acquired during the previous years of study. The capstone courses allow students to acquire in-depth knowledge of a topic of interest using a combination of economic analysis and empirical research. The capstone course counts as one of the five economics electives.

There are three ways of meeting the capstone requirement:

- Participation in the honors program (see below)
- 200-level economics research course. Currently, all 200-level courses include a capstone component.
- Independent study course. For students unable to meet the capstone requirement through (a) or (b), arrangements can be made for individually directed research work.

Students must submit the capstone declaration form with the instructor's signature to the Economics Department when enrolling in a course that they have designated as their capstone.

Honors Program

Economics majors with outstanding academic records (a GPA of 3.4 in economics courses, 3.0 overall) may be accepted by the department as candidates for departmental honors. For students to receive departmental honors, they must also successfully complete an honors thesis. Prospective candidates for honors should develop a proposal for the thesis and identify a faculty supervisor during the second semester of the junior year. During the fall of the senior year, the students will enroll in ECON297 Honors. The student then writes a thesis under the direction of a faculty supervisor. During the spring of the senior year the thesis is evaluated by the department for possible departmental honors.

Economics Minor

Students majoring in another discipline often discover that a minor in economics can provide a background that can complement their major and allow them to explore an interest in economics. The minor requires a minimum of six courses in economics including ECON010 and ECON011. Of the remaining four courses, at least two of them must be at the 200 level. Only courses with a final grade of C- or better will be counted toward the minor.

Study Abroad and Internships

A number of study-abroad programs and internships offer important opportunities for students in economics. Each year, a select group of juniors in the economics major attend the prestigious London School of Economics for two semesters of study. Many majors take advantage of study-abroad opportunities elsewhere as well. Economics majors receive major credit for participation in the London Internship program, which places students in government or business internships in London; the Washington Center program, which places students in internships designed to acquaint them with policy making at the federal level; and the Washington Semester program. Other internships can be arranged through the Clark Internship Office under ECON298. They offer students an opportunity to apply economic analysis in governmental or business settings. Although they can be taken for Clark credit, they do not count towards the 10 required courses in the major. Your faculty adviser can provide you with the departmental guidelines for internships in economics.

Graduate Program

Clark University offers a unique program of graduate study and research leading to the doctor of philosophy in economics. The economics faculty provides students with an excellent opportunity for qualified students to develop proficiency in economic theory, econometrics and their chosen fields of specialization. The design of the Ph.D. program emphasizes that students acquire experience carrying out independent research. The collegial size of the program ensures students ample opportunities to work with faculty.

Institute for Economic Studies

The Institute for Economic Studies was established in 1980 with an initial grant from the John M. Olin Foundation. The institute's main objectives are to research significant economic policy issues facing the nation and to disseminate the results of the research to a broad audience through conferences and publications.

The institute provides a framework within which international scholars engage in cooperative research and exchange of ideas. The institute's activities are supported through annual private grants. The director of the institute is Professor Attiat F. Ott.

Graduate Requirements

The requirements for the Ph.D. include a core of four courses in economic theory and three in mathematical economics and econometrics; qualifying examinations in microeconomic and macroeconomic theory; completion of two fields of the student's choice; completion of two elective courses; and the dissertation. Where appropriate, graduate students may elect to take a limited amount of work in related courses offered by other departments. At least two full academic years of graduate work or the equivalent in part-time work in residence at Clark are required. Some teaching and research experience at Clark, or other such teaching and research as the department may regard as equivalent, is strongly encouraged.

Ph.D. students can satisfy the requirements for econometrics and mathematical economics by passing designated courses offered in the department, or in the case of prior preparation, by passing a test given by the department. The student meets the economic theory requirement by satisfactory completion of the theory courses ECON301, 302, 303 and 304, and by passing two preliminary examinations.

Fields of specialization and/or electives may be selected from among the following: open economy macroeconomics, public finance, industrial organization, international trade, economic development, applied econometrics, health economics, environmental economics, or one field selected from related subjects. At least two field courses are offered annually. Typically, two fields or one field and two electives are taken during the second year, and the remaining requirement is completed during the third year. Students are required to present at least one paper written to meet field requirements to the departmental seminar. Electives should be chosen to provide depth to the Ph.D. students background in economics or breadth needed to carry out dissertation research.

Preparation for writing the dissertation begins during the third year, when the student starts writing the dissertation prospectus. The prospectus lays out the intellectual motivation for the dissertation and the research plan designed to complete it. The dissertation must be an original contribution to knowledge that is based upon independent research, convincingly presented and acceptably written. The dissertation must be completed within five years of passage of the preliminary examinations. If it is not, the student must successfully retake the preliminary examinations in economic theory before defending the dissertation. Under certain circumstances, published articles may be accepted by the department instead of a dissertation.

The student presents the completed dissertation prospectus at an informal conference with all graduate students and faculty invited to attend. After the presentation, the primary adviser, in consultation with the chair of the department, appoints the dissertation committee if the topic is judged feasible. Upon completion of the dissertation in a form acceptable to the committee, the candidate makes a copy of the dissertation available to the department, the faculty and the graduate students for two weeks prior to the dissertation defense. The defense is presented at a seminar open to all faculty and graduate students in the department. Final approval of the dissertation is granted by the committee after consideration of any suggested changes or questions arising from the seminar. Students enrolled in the Ph.D. program may be awarded the M.A. degree upon satisfactory completion of a two-year residency and the preliminary exams. In the case of students who do not continue toward the Ph.D., the M.A. may be awarded upon satisfactory completion of twelve required courses. A student should discuss program plans with the graduate student adviser before registration day and secure approval of the course program.

Scholarship assistance for students admitted to the Ph.D. program is available. Full or partial tuition remission may be granted to particularly well-prepared students. In addition, several teaching assistantships are awarded, enabling graduate students to gain experience in undergraduate instruction. These cover remission of tuition and a cash stipend. Employment as a research assistant is also available for some well-qualified students.

Courses

ECON010 ECONOMICS: A COMPARATIVE APPROACH/LECTURE, DISCUSSION

Introduces the vital contribution economics can make to systematic thought and understanding by analysis of important current policy issues. Rather than emphasizing economic theory, the course begins with a comparative analysis of issues in the social sciences that are of obvious and important concern. From a study of issues, the course proceeds to show how development and use of some basic economic concepts can aid materially in the analysis. Open to first-year students. Multiple sections. Staff/Offered every semester

ECON011 PRINCIPLES OF ECONOMICS/LECTURE, DISCUSSION

Introduction to economic analysis. Develops a set of economic concepts used in the 200-level courses offered in the department. Elements of price and income theory are emphasized. Policy questions are treated both to reinforce concepts and to illustrate applicability of the analysis. Open to first-year students. Prerequisite: ECON010. Staff/Offered every semester

ECON100 BIRTH, DEATH AND ECONOMICS: THE ECONOMICS OF WORLD POPULATION/FIRST-YEAR SEMINAR

The department of economics regularly offers a first-year seminar. The topic differs from year to year but recent offerings have included The Economics of Environmental Regulation; World Population and Individual Well-Being; and The Global Economy. ECON100 is a substitute of ECON010, and fulfills the comparative perspective. Staff/Offered annually

ECON108 INTERNATIONAL ECONOMICS: TRADE AND FINANCE/LECTURE, DISCUSSION

Reviews the basic principles of international economics. Examines policy issues in international trade and foreign investment, and explores policy alternatives. Not a prerequisite for ECON207 or 208, but may be taken in preparation for them. Prerequisite: ECON010 or 100. Staff/Offered every year.

ECON113 MONETARY ECONOMICS: THEORY AND POLICY/LECTURE, DISCUSSION

Monetary economics investigates the structure of the financial system, the institutions and customs of that system and the role of money in the economy. The macroeconomics of money and the role of the Federal Reserve (and other central banks) are studied. Prerequisite: ECON010 or 100. Mr. Weinrobe/Offered every year

ECON125 HEALTH ECONOMICS/LECTURE, DISCUSSION

Examines the economic processes and activities of health-care systems and institutions. Major issues including competition, role of governments and insurance are among the topics that are investigated to assist students in understanding how economic considerations affect the delivery of care. Prerequisite: ECON010 or 100. Staff/Offered periodically

ECON126 PUBLIC POLICY TOWARD BUSINESS/LECTURE, DISCUSSION

Examines the various types of industrial organization, the degrees of monopoly in competition, and the development of public policies that affect business. Among issues traced are the development of antimonopoly regulation, consumer protection and public utilities. Business performance and government regulations are related to criteria from economic theory. Prerequisite: ECON010 or 100. Staff/Offered periodically

ECON128 ECONOMIC DEVELOPMENT/LECTURE, DISCUSSION

Covers same general topics as ECON228, but requires less previous preparation in economics. Offered in alternate years with ECON228. Students may not receive credit for both ECON128 and ECON228. Prerequisite: ECON010 or ECON100. Staff/Offered every other year

ECON157 THE ECONOMICS OF NATURAL RESOURCES AND THE ENVIRONMENT/LECTURE

A review of political economic problems associated with such natural resources as land, water and energy goods, as well as a resource common to all of us, our natural environment. Topics include the assessment of environmental impacts within market-oriented economics and the use of economics in policy designed to address environmental issues such as air pollution, global warming, biodiversity and suburban sprawl. Prerequisite: ECON010 or 100. Ms. Geoghegan/Offered periodically

ECON160 INTRODUCTION TO STATISTICAL ANALYSIS/LECTURE, DISCUSSION

Examines basic concepts and techniques of statistical method in economic analysis: descriptive statistics, probability theory, sampling distributions, hypothesis testing and simple and multiple regression. Staff/Offered every semester

ECON205 MICROECONOMIC THEORY/LECTURE, DISCUSSION

Describes and analyzes how a market-oriented economy functions in answering the five basic economic questions: (a) What commodities to produce? (b) How much of each to produce? (c) What productive techniques to use and how to provide incentives? (d) How to distribute the output among the various members of society? (e) What provision to make for the future? Interspersed with theory, the course contains frequent examples that demonstrate the use of microeconomics in solving problems faced by decision makers in both the private and public sectors. Prerequisite: ECON011. Ms. Geoghegan, Mr. Gray, Mr. Bae/Offered every semester

ECON206 MACROECONOMIC THEORY/LECTURE, DISCUSSION

Macroeconomics is one of the core elements of economics. The subject includes the study of the determinants and behavior of the aggregate economy, including income, employment and the price level. The economy is examined at a point in time (statics) as well as over time (dynamics). Prerequisite: ECON011. Mr. Weinrobe, Mr. Callan, Ms. Ott/Offered every semester

ECON207 INTERNATIONAL TRADE THEORY/LECTURE, DISCUSSION

Studies international trade theory and policy at the intermediate level. Examines the fundamentals of international trade theory: comparative advantage, gains from trade, neoclassical trade theory, trade and income distribution. Traditional and modern instruments of protectionism, arguments for and against free trade and the role of international institutions are discussed. Prerequisite: ECON011; ECON205 is recommended. Mr. Bernhofen/Offered every year

ECON208 INTERNATIONAL MONETARY THEORY/LECTURE, DISCUSSION

International macroeconomics at the intermediate level. The fundamentals of international finance are studied: operations of international currency markets, the concept of the balance of payments and fixed versus flexible exchange-rate regimes. Analyzes macroeconomic policies under different exchange-rate regimes; theories of exchange-rate determination and the working of different international monetary regimes. Prerequisite: ECON011; 206 is recommended. Mr. Callan, Mr. Bernhofen/Offered periodically

ECON222 LABOR/LECTURE, DISCUSSION
Applies the concepts of labor supply and labor demand in a basic model of labor markets. The model is used to analyze the results of the labor market: wages, employment and unemployment. The analysis is modified to allow for market imperfections and nonmarket forces, including trade unions and the government. Further topics include wage discrimination and income inequality. Prerequisite: ECON011. Mr. Gray/Offered every other year

ECON225 HEALTH POLICY/LECTURE, DISCUSSION
Analyzes the role economics plays in shaping U.S. health policy. Among issues discussed are: health as a "priceless" commodity, the relationship between health and wealth, moral hazard of health outcomes in relation to medical intervention, the consequences of longevity for the cost of medical intervention and quality of life. Access to health care, especially lack of health insurance, is examined within alternative delivery systems: nationalized versus private-public mix. Future health policies for the United States are discussed in the context of intergenerational allocation of societal resources between the young and the old. Prerequisite: ECON011 or permission of instructor. Staff/Offered every other year

ECON226 INDUSTRIAL ORGANIZATION/LECTURE, DISCUSSION
Takes the concepts learned in Intermediate Microeconomic Theory to the next level. More complicated theories of firm behavior are examined. By allowing issues such as product differentiation and imperfect knowledge to enter the analysis, students gain access to more realistic views of industrial structure and performance. Practical applications of these theories can then be examined through the use of specific industry studies. Prerequisite: ECON011. Mr. Bae/Offered periodically

ECON228/IDCE328 ECONOMIC DEVELOPMENT/LECTURE, DISCUSSION
Examines the major theories of economic development, the major problems confronting less developed countries, and the policies and strategies appropriate for economic development. Topics include agricultural development, income distribution, industrialization strategies, foreign aid and investment, population, labor and employment. Offered in alternate years with ECON128. Prerequisite: ECON011. Ms. Ickowitz/ Offered every other year

ECON243 AMERICAN ECONOMIC HISTORY/LECTURE, DISCUSSION
Offers a comprehensive survey of the development of the United States economy from a colonial backwater to a leading industrial power. It emphasizes the use of economic reasoning to understand historical controversies such as the struggle over slavery, the causes of the Great Depression, discrimination in labor markets, and the rise of the American export economy. Fulfills historical perspective. Prerequisite: ECON011. Mr. Brown/Offered periodically

ECON244 EUROPEAN ECONOMY: EAST AND WEST/LECTURE, DISCUSSION
Offers a critical examination of European approaches to economic policy. In the West, these include the modern welfare state (widely available health care and housing), a more heavily regulated labor market, and moves toward a common market and currency. In the East, governments relied upon central planning and state ownership, even scoring some initial successes. Blending the tools of economic analysis with a close look at policies, this course will offer answers to these questions and an introduction to the economic challenges facing Western and Eastern Europe in the aftermath of the revolutions of 1989. Prerequisite: ECON011. Mr. Brown/Offered every other year

ECON245 THE HISTORY OF GLOBAL ECONOMY/LECTURE, DISCUSSION

Provides students with a comprehensive introduction to the history of the global economy. Using straightforward tools of economic analysis, we study the debate over the origins of the global economy, the growth of it before World War I, its destruction during the Great Depression, and its re-emergence during the past 50 years. The course focuses on the potential impacts of globalization on economic growth, the distribution of benefits (and costs) and the role played by colonialism and imperialism. Fulfills the historical perspective. Prerequisites ECON011. ECON108 or ECON208 recommended. Mr. Brown/Offered every other year

ECON247/ID30247 ECONOMICS OF POPULATION/LECTURE, DISCUSSION

The economics of population, economic demography, is the analysis of the economic forces that influence population and the demographic factors that affect traditional economic variables. The subject has strong ties to the economics of development, labor, health and macroeconomics, as well as to other disciplines of the social sciences. Prerequisite: ECON011. Mr. Weinrobe/Offered every other year

ECON250 ECONOMICS OF SPORT/LECTURE, DISCUSSION

Applies economic analysis to the sports industry. While the primary focus is on professional team sports, individual and amateur sports are covered as well. Labor relations, antitrust law, public subsidization of sports facilities, discrimination and sports broadcasting are among the topics that are covered from an economics perspective. Prerequisite: ECON011. Staff/Offered periodically

ECON257 ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS

Examines some of the issues associated with the economics of natural resources and the environment. Topics discussed, at both the theoretical and empirical level, are chosen from the following: the theory and analysis of renewable and nonrenewable resources, resource scarcity and the economy, sustainable development and the measurement of the benefits and costs of environmental regulation. Proper policies are discussed to encourage resource conservation, the problems of common property resources and the use of economic incentives to internalize environmental externalities. Prerequisite: ECON011 (LAS 256) Ms. Geoghegan/Offered periodically

ECON261/ECON361 TOPICS IN STATISTICS/LECTURE

This course provides a detailed theoretical foundation for econometric analysis. The emphasis is on the development of fundamental statistical concepts of inference and hypothesis testing from a classical perspective using the tools of probability theory. Topics that we will investigate include sampling and sample distributions, graphical data analysis, point and interval estimation, hypothesis testing and an introduction to Bayesian inference. Prerequisite: MATH217 or ECON260. Ms. Bernhofen/Offered periodically

ECON265 ECONOMETRICS

This course deals with the application of statistical methods to economics. The objective is to expose students to: economic model building, testing the model statistically and applying the model to practical problems in forecasting and analysis. By understanding the theoretical and econometric basis of equations, students gain proficiency in formulating, estimating and interpreting testable relationships on their own. Prerequisite: ECON011 and 160. Staff/Offered periodically

ECON271/ECON371 INTRODUCTION TO MATHEMATICAL ECONOMICS/LECTURE, DISCUSSION

An introductory survey of the use of mathematical methods in economic analysis. Topics include elements of linear algebra, optimization and differentiated equations. Prerequisite: ECON011 and permission of instructor. Offered for variable credit. Staff/Offered every year

ECON273 FORECASTING/LECTURE, DISCUSSION
Investigates a number of forecasting techniques commonly used in economic analysis. Among the techniques covered are time series analysis, econometric models, simulation models and expectations surveys. Prerequisites: ECON011 and 160 or equivalent. Mr. Callan/Offered periodically

ECON277 URBAN ECONOMICS/LECTURE, DISCUSSION
Urban economies provide most of the employment in the developed world and the most dynamic sector of developing economies. Cities are also home to a growing share of the world's residents. This course offers an overview of two key dimensions of the economies of urban areas: the process of agglomeration and the forces shaping where people live and work. The course applies theoretical insights from urban economics to questions facing urban areas, including the question of overurbanization, urban sprawl, spatial segregation by race and income, and housing. Our discussion draws upon examples from Beijing to Berlin to Worcester. Prerequisite: ECON011. Mr. Brown/Offerered every year

ECON297 HONORS
Students work on an individual basis with a faculty member on an intensive piece of research, culminating in an honors thesis. A student desiring departmental honors must register for one semester of ECON297 in the fall of the senior year. Required for departmental honors. Prerequisite: permission of instructor. Staff/Offered every year

ECON298 INTERNSHIP
Students spend a semester working full or part time outside the University as part of their academic experience. To qualify, the internship experience must significantly involve an extension, embodiment or illustration of previous or concurrent, systematic academic work in economics. Offered for variable credit. This course does not count toward the economics major. Staff/Offered every year

ECON299 INDEPENDENT STUDY
Offered for variable credit. Staff/Offered every year

ECON301 MICROECONOMICS-FOUNDATIONS/SEMINAR
Mr. Bernhofen, Mr. Brown/Offered every year

ECON302 MICROECONOMICS-TOPICS/SEMINAR
Mr. Gray, Mr. Bae/Offered every year

ECON303 MACROECONOMICS/SEMINAR
Ms. Ott/Offered every year

ECON304 MACROECONOMICS/SEMINAR
Mr. Callan/Offered every year

ECON307 INTERNATIONAL ECONOMICS/SEMINAR
Mr. Bernhofen

ECON308 OPEN ECONOMY MACROECONOMICS
Mr. Callan

ECON322 LABOR ECONOMICS/SEMINAR
Mr. Gray/Offered every other year

ECON326 INDUSTRIAL ORGANIZATION/SEMINAR
Mr. Bae

ECON328 ECONOMIC DEVELOPMENT/SEMINAR
Ms. Ickowitz/Full-year course. Offered every other year

ECON357 ENVIRONMENTAL ECONOMICS/SEMINAR
Ms. Geoghegan

ECON360 PROBABILITY AND STATISTICS
Ms. Bernhofen

ECON366 APPLIED ECONOMETRICS/ SEMINAR
Mr. Gray/Full-year course. Offered every other year

ECON373 FORECASTING
Mr. Callan

ECON377 URBAN ECONOMICS/SEMINAR
Mr. Brown/Offered every other year

See Mathematics
MATH217/ECON360 Probability and Statistics

EDUCATION

Program Faculty

Thomas Del Prete, Ed.D., *Chair*
John Ameer, Ph.D.
Thomas Berninghausen, Ph.D.
S. Leslie Blatt, Ph.D.
Sharon A. Griffin, Ph.D.
Sarah Michaels, Ph.D.
Maureen Reddy, Ph.D.
David Zern, Ph.D.

Clinical Faculty

Holly Dolan-Rourke, M.Ed.
Nathaniel C. Seale, M.Ed.
Marlene Shepard, M.A.

Emeriti Faculty

Helen J. Kenney, Ed.D.
William C. Kvaraceus, Ed.D.

Program Overview

Programs offered through the Education Department and the Jacob Hiatt Center for Urban Education build on and extend students' work in the liberal arts. Programs accommodate both those students who are preparing to assume professional roles in education and those interested in learning about education for its own sake.

The Education Department, the Jacob Hiatt Center for Urban Education, and liberal-arts faculty work together in collaboration with the Worcester Public Schools to provide students with outstanding programs in urban-teacher education. These programs correspond to requirements for teacher licensure in the Commonwealth of Massachusetts.

Programs are designed to qualify both undergraduate and graduate students for the initial license at the elementary, middle and secondary teaching levels. The initial license is the second level of licensure in Massachusetts and qualifies students to teach in Massachusetts and most other states.

Core Values and Commitments

- Preparing students to work with diverse groups of children in urban settings, with emphasis on understanding the role of language and culture in education.
- Developing teachers as reflective learners and practitioners able to build learning communities with both children and adults, in part by introducing them to various "ways of knowing" in the liberal arts.
- Developing teachers as researchers disposed and able to inquire into their own teaching practice and children's learning.
- Collaborating among education faculty, liberal-arts faculty, researchers, teachers and students in the professional-development school partnership between Clark and the Worcester Public Schools.
- Exposing students to exemplary learning programs for children in the professional-development schools established through the efforts of the Hiatt Center, Education Department and Worcester Public Schools.

The Jacob Hiatt Center for Urban Education

The Jacob Hiatt Center for Urban Education is a partnership between Clark University and the Worcester Public Schools dedicated to rethinking the challenges and possibilities of contemporary urban schools. The center brings together teachers, administrators, researchers and students to foster innovation and scholarship in education.

Professional Development School Collaborative

Much of the learning in the teacher education programs takes place in a professional-development school. This is a school uniquely committed to both teacher learning and student learning. Our programs are fully integrated with a set of urban elementary, middle and secondary schools located in or near the south quadrant of Worcester, neighboring Clark. The faculty and administrators at these Worcester public schools work continuously with Clark faculty, undergraduate teacher-preparation students and master's students. Each school has a teacher coordinating this work full time, and each is an important site for education reform. Each site provides Clark students with an exceptional opportunity to develop as teachers, to understand curriculum and learning and to support and assess diverse learners.

The professional-development school collaboration with the Worcester Public Schools is a large part of Clark's efforts to ensure high quality and distinction in its programs and to contribute to education reform. The schools and the Jacob Hiatt Center for Urban Education are bound together in mutual support, commitment and service.

University Park Campus School

Clark and the Worcester Public Schools have collaborated on the development of the University Park Campus School (UPCS), an exemplary grade 7-12 neighborhood school and the centerpiece of a neighborhood renewal project. The school is infused with a strong sense of purpose, focusing on preparing its students for university-level academic work, plus a spirit of community fostered by the participation of families and Clark students and faculty in all of its programs. Students who graduate from this "school with a promise" are eligible to attend Clark tuition free. "Going to a university has been my one dream," said a University Park student. UPCS is one of the professional-development schools for middle- and secondary-level students, and it is the single-most important example of our effort to integrate school, university and community renewal.

Major Requirements

Initial Teacher Licensure

In order to qualify for the initial teaching license in Massachusetts, a student must earn (or hold) a bachelor's degree in the arts and sciences. Undergraduates must complete a disciplinary or interdisciplinary major and take courses that fulfill state standards in her/his instructional field(s). All students must take courses that meet the state professional standards for teachers, and must pass the Massachusetts Tests for Educator Licensure.

The Education Department and the Hiatt Center offer programs leading to the initial license at the elementary, middle and secondary levels for both undergraduate and graduate students. Each program integrates course work with field experiences in professional-development schools under the guidance of education faculty and expert practitioners. Qualified undergraduates may complete a program for the initial license during a tuition-free fifth year as B.A./M.A. participants in the Master of Arts in Teaching program (see Clark Accelerated B.A./M.A. Program requirements).

Elementary (Grades 1-6) Initial Licensure Program

EDUC152 Complexities of Urban Schooling (required for undergraduates only)
EDUC260 Literacy Development
EDUC261 Human Development and Learning
EDUC282 Ways of Knowing in the Arts
EDUC283 Ways of Knowing in History/ Social Sciences
EDUC284 Ways of Knowing in the Humanities
EDUC286 Ways of Knowing in the Physical and Natural Sciences
EDUC287 Ways of Knowing in Mathematics
EDUC288A Practicum: Elementary Teaching and Learning
EDUC288B Seminar in Elementary Teaching and Learning

Students seeking to qualify for the elementary-teaching license must take a range of courses in the arts and sciences that correspond to state subject matter knowledge requirements. This requirement may affect a student's choice of liberal-arts major. Students should contact the elementary program coordinator in the Education Department as early as possible to discuss this and other program requirements.

Middle School (Grades 5-8) Initial Licensure Program

(In the following areas: biology, English, general science, history, mathematics and physics)

EDUC208 Literacy Across the Curriculum
EDUC152 Complexities of Urban Schooling
EDUC261 Human Development and Learning or PSYC150 Development in Child and Adolescent
EDUC270A Becoming an Effective Middle School Educator
One "Ways of Knowing" course corresponding to teaching field (see list above)
EDUC278A Practicum: Middle-School Teaching and Learning
EDUC278B Seminar in Middle-School Teaching and Learning

Secondary (Grades 8-12) Initial Licensure Program

(In biology, chemistry, English, French, history, mathematics, physics, Spanish and visual arts)

EDUC208 Literacy Across the Curriculum
EDUC261 Human Development and Learning or EDUC190 Experience of Adolescence
EDUC270B Becoming an Effective Secondary-School Educator or EDUC272
EDUC271 Cultures of American Schools or EDUC152 Complexities of Urban Schooling
EDUC272 Focusing on a Discipline or ED270B
One "Ways of Knowing" course corresponding to teaching field (see list above)
EDUC279A Practicum: Secondary-School Education
EDUC279B Seminar: Secondary-School Teaching and Learning

Graduate Program

Master's in Urban Education and Teacher Research

The master's program in Urban Education and Teacher Research is designed for full-time students (including undergraduates who qualify for both the initial teaching license and the accelerated B.A./M.A. program). This one year, 10 course program provides well-rounded experiences: core courses in the areas of culture, language, teaching and teaching research; extensive teaching responsibility in professional-development schools under the guidance of education faculty and expert practitioners; intensive summer institute courses with arts and sciences, education and K-12 teaching faculty; course work in a student's teaching field; a teacher research project and teaching portfolio. Teachers who wish to enroll as part-time students should consult with the Education Department.

Required Courses

EDUC311 Teaching and Learning
EDUC327 Culture, Language and Education
EDUC367 Clinical Field Experience and Seminar I
EDUC368 Clinical Field Experience and Seminar II

In addition, students normally take one summer institute course and two additional courses during the academic year, including courses corresponding to their subject matter field. Part-time students who are already fully licensed take additional course work in lieu of field experience. All of the courses for full- or part-time students must be determined in consultation with the education chair or the program coordinator.

Master of Arts in Teaching

The Master of Arts in Teaching (M.A.T.) program is designed for full-time students (including undergraduates who qualify for the accelerated B.A./M.A. program) seeking the initial teaching license at either the elementary, middle or secondary levels. It begins in spring/summer and extends through the following academic year. Students enter as part of a cohort team that is guided through the program by university and school mentors. They are placed with a teacher mentor in one of the Hiatt Center professional-development schools at the beginning of the academic year and take the equivalent of 10 courses, including the teaching practicum, depending on their prior course work and planned teaching level.

M.A.T. Required Courses

- EDUC311 Teaching and Learning
- EDUC326A Ways of Knowing Seminar
- EDUC361 Human Development and Learning
- A Curriculum and Knowing summer institute in the arts, humanities, mathematics, physical and natural sciences or history/social sciences
- Ways of Knowing courses in the arts, humanities, history, mathematics or physical and natural sciences, depending on the student's teaching field
- Practicum in elementary-, middle- or high-school teaching
- Seminar in elementary-, middle- or high-school teaching
- EDUC360 Literacy Development (elementary students)
- EDUC308 Literacy Across the Curriculum (middle/secondary students)

Each middle- and secondary-level student takes an additional course corresponding to her/his teaching field and/or courses focused on teaching at the middle or secondary level.

Special Programs

Human Services Program

This four-course sequence is designed for students interested in pursuing a career and/or graduate study in education and the helping professions. Students will have course work and field experiences dealing with diverse groups including children, families and the aged in settings which include schools, the court system, mental-health agencies and institutions. Students will acquire skills through a balance of study and applied field work. Work in the Worcester area will serve to integrate material from the sequence.

Students receive an official transcript notation documenting the completion of this program.

EDUC155 Education and Social Policy
EDUC194 Field Experience I
EDUC195 Field Experience II
EDUC269 The Skilled Helper

School Psychology Program

This four-unit sequence provides intensive first-level training for students in the junior and senior years considering advanced graduate work in school psychology and related professional fields. Students are required to complete a two-semester placement for 10 hours a week under the supervision of a school counselor, social worker or psychologist. Students receive an official transcript notation documenting the completion of this program.

EDUC266 Analysis of Individual Ability and Style
EDUC268, Sec. 1 Psychoeducational Methods Semester I
EDUC268, Sec. 2 Psychoeducational Methods Semester II

Courses

EDUC105 NATURE AND BASIS OF MORALITY/FIRST-YEAR SEMINAR

This seminar will examine a variety of meanings for, and influences on, morality. Influences considered will include the family, schools, religion, peers, and the individual him/herself. In addition to intensive consideration of a diverse set of primary source readings in both behavioral sciences and in religious writings (the latter to a lesser extent), students will analyze answers to questionnaires they and previous classes have collected on the subject, and they will use those analyses in a systemic way to test their own and others' hypotheses. Past experience with the course suggests strongly, albeit

somewhat unsystematically, that tolerance and appreciation by the students of both complexity and even ambiguity helps to foster a better educational experience for both students and faculty. Fulfills the values perspective.
Mr. Zern/Offered every year

EDUC112 TRANSFORMATIVE SCHOOLING: DOCUMENTARY VIDEO FOR SOCIAL CHANGE/FIRST-YEAR SEMINAR

This is a field-based and inquiry-oriented seminar, an apprenticeship in documentary filmmaking as well as in school and community research and advocacy for social change. The course involves instruction in the basics of video production (using state-of-the-art digital cameras) and seminar members partner with new and experienced teachers in inner-city public schools. We work with them as video assistants and also develop our own films about the challenges and possibilities of urban school reform. In addition to hands-on activity, there is serious attention to reading in the field of ethnographic research, education reform and community institutions that support youth development. Moreover, seminar members get involved in grassroots organizing and soliciting input from the community, as well as ongoing critique of their planning documents, filmed footage and written companion texts. We thus integrate field work with theory and reflective critique. A final project for this seminar will be completed in the spring semester. Fulfills the values perspective and is recommended for all communication and culture majors.
Ms. Michaels/Offered every year

EDUC152 COMPLEXITIES OF URBAN SCHOOLING/ LECTURE, DISCUSSION

Addresses the social and academic questions that surround urban education using linguistic, sociological and psychological perspectives. Through lecture, discussion and field work, students will explore challenges faced by educators. For undergraduate students in the initial teacher-licensure programs. Mr. Ameer/Offered every year

EDUC155 EDUCATION AND SOCIAL POLICY/ LECTURE, DISCUSSION

Examines social problems, social policy and education. Conceptual tools for the analysis of social policies are used. Examinations of existing programs and social agencies enable students to understand agency functions, client population and the relationship between the individual-agency and the larger social-service network. Emphasis is placed on social problems and social solutions, linking individuals and external primary groups with societal resource systems and the impact of social-policy change on individuals and institutions. Mr. Seale/ Offered every year

EDUC190 THE EXPERIENCE OF ADOLESCENCE/ LECTURE, DISCUSSION

Explores adolescent development through theory and research drawn from the behavioral and social sciences as well as fiction. Students study education during the adolescent years. Special social and interpersonal problems and issues confronting today's adolescent are considered, as are relevant teaching and learning theories. Students apply the course material to both teaching and learning in a series of descriptive and analytic reports. Mr. Zern/ Offered every year

EDUC194/EDUC195 FIELD EXPERIENCE: SPECIAL EDUCATION AND HUMAN SERVICES/DISCUSSION, FIELD PLACEMENT

Provide direct, supervised experience within educational and human-services agencies. Placements are based upon students' experience, goals and academic backgrounds. Placement possibilities include schools, mental-health centers, institutions, the courts, substance-abuse centers, crisis agencies and group homes. A weekly seminar provides the opportunity for students to analyze their field-work experience. Special note: These courses may be taken as a full-year, two-course sequence (EDUC194 and 195) or as a single course either semester (EDUC194). Mr. Seale/Offered every year

EDUC208/EDUC308 LITERACY ACROSS THE CURRICULUM/LECTURE, DISCUSSION, SEMINAR, FIELD PLACEMENT

Designed for students teaching at both the middle and secondary levels. Focuses on literary issues affecting learning across all curriculum areas, as well as the particular reading-writing and discourse issues that affect learning in different disciplines. Field work will enable students to try various instructional strategies and assessment practices. Staff/Offered periodically

EDUC252/EDUC352 YOUNG CHILDREN AND THE ARTS/LECTURE, DISCUSSION, STUDIO

The development of children's abilities to express themselves through varied symbolic forms is examined. Students express themselves using different media in the studio. Classroom instruction at the early-childhood and elementary levels is explored. No prerequisites. Ms. Fisher/Offered periodically

EDUC260/EDUC360 LITERACY DEVELOPMENT/LECTURE, DISCUSSION, SEMINAR, FIELD PLACEMENT

An overview of the development of reading, writing and literacy-related oral-language abilities from the preschool years through high school. Links between oral and written skills and between reading and writing are examined. Special attention will be given to the teaching of reading and writing in ways that support greater student engagement. Field work in schools will enable students to try out various instructional approaches. Ms. Reddy/Offered every year

EDUC261/EDUC361 HUMAN DEVELOPMENT AND LEARNING/LECTURE, DISCUSSION

Introduces students to central and evolving understandings of human development and their implications for learning and pre-K through 12 schooling. Particular emphasis will be given to cognitive and sociocultural theories of learning and development. Ms. Griffin/Offered every year

EDUC264/EDUC364 KNOWLEDGE, DEVELOPMENT AND INSTRUCTION/LECTURE, DISCUSSION, CLASS EXERCISES

Examines central knowledge structures children acquire during the preschool and elementary years and how they influence school learning; how these structures develop for typical and atypical children; and opportunities for students to develop skills in developmental assessment and instructional programming. Students use their understanding of children's development to design classroom and remedial learning activities. Ms. Griffin/Offered every year

EDUC265 EMOTIONAL DEVELOPMENT/SEMINAR

Examines what emotions are and how they develop from birth to adulthood. Emphasis is placed on emotional development during childhood; on the ways emotions are shaped by cognitive, social and biological factors; and on the ways emotions shape learning and behavior. Ms. Griffin/Offered periodically

EDUC266 ANALYSIS OF INDIVIDUAL ABILITY AND STYLE/LECTURE, DISCUSSION, PRACTICUM

Uses techniques to understand the individual as a whole. The theory of individual assessment, some tools for assessment, and the analysis of assessment data will be covered. Focus is placed on understanding, administering and interpreting both traditional and alternative assessment tools, including measures of cognitive ability, scholastic achievement and personality. Students are required to administer assessment procedures and analyze case histories. Mr. Zern/Offered every year

EDUC267 ROLE OF VALUES IN EDUCATION/LECTURE

Explores the roles values play in the educating process. A classification of values will be developed, followed by a variety of models to understand how values develop in a society. Selected descriptive, empirical and theoretical analyses will be considered to understand the impact values have on other behaviors. Students will develop and explore the interaction of values and education. Mr. Zern/Offered periodically

EDUC268 SEC. 1 AND 2 PSYCHOEDUCATIONAL PRACTICUM AND SEMINAR/SEMINAR, FIELD PLACEMENT

Provides a two-semester placement, eight to 10 hours a week, within the pupil-personnel department of a public-school system. A school psychologist and/or counselor will function as an ongoing supervisor. Activities include experience in conducting and interpreting psychoeducational assessments, obtaining social and developmental-history information through home visits, and observing and participating in the development of individualized educational plans as part of the team evaluation process. Mr. Seale/Offered every year

EDUC269 THE SKILLED HELPER/LECTURE, DISCUSSION, PRACTICUM

Designed for the development of the helping professional. Emphasis is placed on dynamics of the helping relationship and basic interviewing skills. Class exercises are used to facilitate skill development. Students who are not concurrently taking a field course are placed in a human-service agency one-half day per week. Mr. Seale/Offered every year

EDUC270A/EDUC370A BECOMING AN EFFECTIVE MIDDLE-SCHOOL EDUCATOR/LECTURE, DISCUSSION, FIELD-EXPERIENCE SEMINARS

Takes place at the Sullivan Middle Professional Development School under the direction of Clark education faculty and the Sullivan professional-development school coordinator. Grounded in an understanding of the developmental characteristics and needs of middle-school-age students, it enables students to understand and develop competency in various practices—such as cooperative learning (including "complex instruction") and reciprocal teaching—that engage students of diverse backgrounds in active learning. Mr. Del Prete/ Offered periodically

EDUC270B/EDUC370B BECOMING AN EFFECTIVE SECONDARY EDUCATOR/LECTURE, DISCUSSION, FIELD EXPERIENCE

Investigates the teaching process as a dynamic, complex human endeavor requiring the mastery of a variety of skills and the acquisition of a specific knowledge base. Mr. McDermott/ Offered every year

EDUC271/EDUC371 CULTURES OF AMERICAN SCHOOLS/LECTURE, DISCUSSION, SCHOOL VISITS

This course will examine the nature and make-up of the cultures surrounding and composing American schools from a variety of points of view in order to better understand the nature of schooling in America. A field-work component is required and students will read from a variety of social-science sources, including science fiction and Supreme Court decisions. Mr. Zern/Offered every year

EDUC272/EDUC372 FOCUSING ON A DISCIPLINE IN THE SECONDARY SCHOOL/LECTURE, DISCUSSION, FIELD EXPERIENCE

Investigates the teaching process by direct observation of and interaction with practitioners in a secondary school. Students will acquaint themselves with a high school to acquire a sense of the community make-up. Students will observe and work with teachers in their subject area and will volunteer to aid in class, correct papers, tutor and prepare worksheets. Students will also teach one class. Ms. Rodrigues/Offered every year

EDUC273/EDUC373 SCIENCE AND SOCIETY

Deals with the construction of knowledge and authority in the physical and biological sciences. Processes of change in science are studied—how science is situated in history, the mutual influences between science and culture, and characteristic forms of thinking and practice in different branches of science (primarily physics and biology), as well as how these compare to other human endeavors. Themes from the philosophy, history and the sociology of science will be integrated, as well as science and technology studies. The nature of scientific literacy and issues germane to the teaching and learning of science in schools will be studied. Mr. Blatt/Offered periodically

EDUC278A PRACTICUM: MIDDLE-SCHOOL TEACHING/LEARNING

Involves at least 300 hours of teaching/learning experience at a professional-development school. Students will be supervised by education faculty and/or professional-development school teachers. Mr. Del Prete/Offered every year

EDUC278B SEMINAR: MIDDLE-SCHOOL TEACHING/LEARNING

The aim of this field-based seminar is to foster reflective practice, and to deepen understanding of how to engage, support, sustain and assess the learning of diverse students. Students will conduct rounds and develop and present a portfolio of their work, which meets Massachusetts curriculum and teaching guidelines. Mr. Del Prete/Offered every year

EDUC279A PRACTICUM: SECONDARY EDUCATION

The culminating experience for the secondary initial-licensure candidate. Students complete at least 300 hours of field work with corresponding seminars and conferences. Staff/ Offered every year

EDUC282/EDUC382 WAYS OF KNOWING IN THE ARTS/LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

EDUC283/EDUC383 WAYS OF KNOWING IN HISTORY AND THE SOCIAL SCIENCES/LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

EDUC284/EDUC384 WAYS OF KNOWING IN THE HUMANITIES/LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

EDUC286/EDUC386 WAYS OF KNOWING IN THE PHYSICAL AND NATURAL SCIENCES/LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

EDUC287/EDUC387 WAYS OF KNOWING IN MATHEMATICS/LECTURE, DISCUSSION, FIELD PLACEMENT

Staff/Offered every year

EDUC288A/EDUC388A PRACTICUM: ELEMENTARY TEACHING/LEARNING

Involves at least 300 hours of teaching/learning experience at a professional-development school. Students will be supervised by education faculty and/or professional-development school teachers. Staff/Offered every year

EDUC288B/EDUC388B SEMINAR: ELEMENTARY TEACHING/LEARNING

The aim of this field-based seminar is to foster reflective practice and deepen understanding of how to engage, support, sustain and assess the learning of diverse students. Students will conduct rounds and develop and present a portfolio of their work, which meets Massachusetts curriculum and teaching guidelines. Staff/ Offered every year

EDUC299 SEC. 1 DIRECTED READINGS - UNDERGRADUATE

Independent study for qualified students on a selected topic. Permission of instructor required. Offered for variable credit. Staff/ Offered every year

EDUC299 SEC. 2 DIRECTED RESEARCH - UNDERGRADUATE

Staff/Offered every year

EDUC299 SEC. 4 FIELD PROJECT - UNDERGRADUATE

Provides individualized and extended experiences in a wide variety of educational and human-service agencies and institutions. Supervision is provided by the University and field-agency personnel. Combines related seminars, conferences and readings as a basis for critical analysis of the experiences within the context of applied theory and practice. Offered for variable credit. Staff/Offered every year

EDUC304/305 TEACHING AS RESEARCH SEMINAR I, II

Brings together urban-school teachers (at the elementary, middle, and secondary level) with graduate students and faculty involved in university-based educational research. Focuses on qualitative, sociolinguistic research in classrooms, emphasizing the study of talk and texts as a vehicle for better understanding students' learning, developing systematic techniques for describing and critiquing classroom activities, and supporting effective learning among a socioculturally diverse population of students. Participants meet in small, facilitated groups to carry out qualitative research in urban classrooms and develop forums through which their work can be disseminated to a wider community of teachers and researchers. Staff/Offered every year

EDUC306 CREATING LITERACY ENVIRONMENTS IN ELEMENTARY SCHOOLS/SEMINAR

Reviews recent studies reporting efforts to establish classrooms with varied opportunities for children to use language and literacy. Implications of this research for instruction are considered and classroom practice is examined. Teams of students (e.g., a classroom teacher and a full-time graduate student, or two classroom teachers) identify and examine issues related to language and literacy use in classroom practice. Some students try novel methods and examine the effects of these innovations. Staff/Offered periodically

EDUC311 TEACHING AND LEARNING/SEMINAR, DISCUSSION

Challenges the theory that there is one best way of understanding that students must learn according to that one way, and that their capacity to learn ought to be judged accordingly. Explores many adequate pathways for developing knowledge and emphasizes that teachers who acknowledge and support different pathways help make learning more accessible for students. This premise and its implications for teaching, curriculum, assessment, the formation of learning communities for diverse groups of students, and the role of the teacher in enabling students to actively construct knowledge are explored. Mr. Del Prete/Offered every year

EDUC313 STUDIES IN MIDDLE-SCHOOL TEACHING AND CURRICULUM/SEMINAR, DISCUSSION

Mr. Del Prete/Offered periodically

EDUC314 SELECTED TOPICS IN CHILDREN'S LITERATURE/SEMINAR, DISCUSSION

This course will immerse students in reading and writing about chapter books written for children and young adults. We will read as a class one to two books per week depending on length. Additional reading will be required for a class presentation and also for the final project. The bulk of the reading will be drawn from the Newbury Medal and honor-award winners. This course will focus on reading, discussing and writing about children's/young adults' literature as literature rather than issues of teach-ability or age appropriateness.
Mr. Berninghausen/Offered periodically

EDUC324 BUILDING CONCEPTUAL BRIDGES/ LECTURE, SEMINAR

Ms. Griffin/Offered periodically

EDUC325 RECENT THEORETICAL ADVANCES IN INTELLECTUAL DEVELOPMENT AND THEIR IMPLICATIONS FOR EDUCATION: A CASE STUDY/LECTURE, SEMINAR

Studies contemporary theories in the field of intellectual development, their application to the domain of mathematical reasoning, and the general intellectual tradition (empiricist, rationalist, sociohistoric) and interpretive frameworks within which this work has been conducted. The relevance of this work for understanding education in the United States today and in suggesting directions for its improvement will also be discussed.
Ms. Griffin/Offered periodically

EDUC326A WAYS OF KNOWING SEMINAR

This yearlong seminar is designed to support M.A.T. students in developing an understanding of what it means to teach according to the ways of thinking, inquiring, writing and performing represented by each academic discipline in the context of diverse urban-learning communities.

EDUC326B WAYS OF KNOWING SEMINAR

This seminar engages M.A. students in deepening and demonstrating their understanding of what it means to teach the academic disciplines in the context of diverse urban-learning communities.

EDUC327 CULTURE, LANGUAGE, AND EDUCATION

Graduate-level course dealing with theories and practices relevant to teaching and learning within a sociocultural perspective. Questions about language and cognition, multicultural and social diversity in the classroom, curricular and pedagogical theories and practices, language and literacy development, bilingual education, access and equity, learning across the life span, and the politics of education are discussed. In all areas, analysis of language and communication is used as a key tool for critical understanding. Staff/Offered every year

EDUC343 ANALYSIS OF THE RESEARCH PROCESS/ LECTURE, DISCUSSION

Focuses on understanding the structure and intent of a research report. Careful analysis of existing educational research is explored. Sources are considered in terms of particular elements in their overall structure, including hypothesis formation, operationalization of major terms, research design, etc. Mr. Zern/ Offered periodically

EDUC348 STATISTICS IN EDUCATION/ LECTURE, DISCUSSION

Mr. Zern/Offered periodically

EDUC362 MATH AND/OR EMOTION RESEARCH/ SEMINAR

Ms. Griffin/Offered periodically

EDUC363 COGNITION AND INSTRUCTION/ SEMINAR

Students will investigate the conceptual networks children construct for mathematical concepts, the instructional principles that underlie effective instruction and the variety of methods that can be used to assess children's learning and development. Each student will conduct an independent research study on a topic of interest. Ms. Griffin/Offered periodically

EDUC367 SEC. 1 CLINICAL EXPERIENCE AND SEMINAR I (ELEMENTARY)

EDUC367 SEC. 2 CLINICAL EXPERIENCE AND SEMINAR I (MIDDLE SCHOOL)

EDUC367 SEC. 3 CLINICAL EXPERIENCE AND SEMINAR I (SECONDARY)

Integrates at least 200 hours of focused field work with group professional-development activities such as "rounds" and seminar discussion. Students will be mentored by education faculty and/or professional-development school teachers as they broaden and deepen their understanding of particular approaches to curriculum (consistent with local, state and national curriculum frameworks) and develop expertise in teaching practices (e.g., fostering and assessing literacy development) that engage groups of children, including children with special needs, in active and developmentally appropriate learning. This experience promotes students' capacity to build and participate in a professional learning community reflecting on teaching, children's learning, schooling and education. For master's students seeking standard teaching certification.
Mr. Del Prete/Offered every year

EDUC368 SEC. 1 CLINICAL EXPERIENCE AND SEMINAR II (ELEMENTARY)

EDUC368 SEC. 2 CLINICAL EXPERIENCE AND SEMINAR II (MIDDLE)

EDUC368 SEC. 3 CLINICAL EXPERIENCE AND SEMINAR II (SECONDARY)

Integrates at least 350 hours of field work with group professional-development activities such as "rounds," seminar discussion and teacher research. Students will be mentored by education faculty and/or professional-development school teachers as they develop their teaching practice and understanding of children's learning. Particular emphasis will be placed on ways to develop and support children as active thinkers, on providing multiple paths of learning for children in keeping with diverse needs and ways of knowing, and on creating and sustaining a responsive and responsible learning community. Students will frame and conduct a teacher research project to build understanding of some aspect of the teaching-learning process. For master's students seeking standard certification. Mr. Del Prete/Offered every year

EDUC377 FACILITATING TEACHER RESEARCH: ETHNOGRAPHIC AND SOCIOLINGUISTIC METHODS

Provides theoretical, methodological and applied research training to classroom teachers and graduate student/researchers interested in facilitating teacher research. Readings will include text: 1) about teacher research; 2) by teacher researchers; 3) about theoretical and empirical work on group discussion and the social formation of mind. In addition, participants will be involved in ongoing data collection and analysis of existing teacher research groups. Thus the forum will develop practical skills in group leadership as well as research skills in documenting and analyzing teacher research. This is an advanced seminar for people who have already participated in teacher research and/or facilitating teacher-research groups. Permission of the instructor is required. Ms. Michaels/Offered periodically

EDUC378A PRACTICUM: MIDDLE-SCHOOL TEACHING/LEARNING

Involves at least 300 hours of teaching/learning experience at a professional-development school. Students will be supervised by education faculty and/or professional-development school teachers. Mr. Del Prete/Offered every year

EDUC378B SEMINAR: MIDDLE-SCHOOL TEACHING/LEARNING

The aim of this field-based seminar is to foster reflective practice, and to deepen understanding of how to engage, support, sustain and assess the learning of diverse students. Students will conduct rounds and develop and present a portfolio of their work, which meets Massachusetts curriculum and teaching guidelines. Mr. Del Prete/Offered every year.

EDUC379A PRACTICUM: SECONDARY EDUCATION

Involves at least 300 hours of teaching/learning experience at a professional-development school. Students will be supervised by education faculty and/or professional-development school teachers. Mr. Del Prete/Offered every year

EDUC379B SEMINAR: SECONDARY-SCHOOL TEACHING AND LEARNING

The aim of this field-based seminar is to foster reflective practice and to deepen understanding of how to engage, support, sustain and assess the learning of diverse students. Students will conduct rounds and develop and present a portfolio of their work, which meets Massachusetts curriculum and teaching guidelines. Mr. Del Prete/Offered every year

EDUC391 THESIS RESEARCH

Individual research related to the doctoral dissertation. Students meet with members of their dissertation committee for assistance with their dissertation study. Advising conferences are scheduled as needed by the individual student with committee members. The chair of the dissertation committee coordinates the advising process. Offered for variable credit to be determined by the dissertation chair. Staff/Offered every year

EDUC399 SEC. 1 DIRECTED READINGS - GRADUATE

Independent critical analysis of literature related to individual research. Offered for variable credit. Staff/Offered every year

EDUC399 SEC. 2 DIRECTED RESEARCH - GRADUATE

Individual research with direction from an instructor. Offered for variable credit. Staff/Offered every year

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in Education. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See English

ENG021 Literacy, Learning, Writing

See Physics

PHYS020 Discovering Physics

Program Faculty

Charles Agosta, Ph.D., *Committee Chair*
Alan Jones, Ph.D.
Lee Rudolph, Ph.D.

Program Overview

The 3/2 engineering program at Clark University is a five-year program offered in conjunction with several affiliated schools. Currently these schools are Columbia University, Washington University and Worcester Polytechnic Institute. Students enrolled in this program complete three years in residence at Clark followed by two additional years at one of the engineering schools. Students completing the program receive a B.A. degree from Clark and a B.S. degree in engineering from the affiliated school.

At Clark, students major in a field that strongly overlaps the entrance requirements for the engineering school. Appropriate majors include chemistry, computer science, environmental science and policy, mathematics, physics, and a self-designed liberal-arts/engineering major. At the engineering school, students may major in any of the fields they offer. In addition to the traditional engineering fields taught at all schools, unique programs such as engineering and public policy, biomedical engineering, system science and engineering, and fire-protection engineering are also available. Please consult the program chair for further information.

While the program is open to all Clark students, the required curriculum must be started during the first year of study to permit the timely completion of all requirements. Those students whose high-school background (as determined by placement examinations) has not prepared them to enter calculus (MATH120) and composition (ENG020) during their first semester must attend summer school to complete the requirements on time. All students intending to pursue the program are required to notify the program chair of their intent at the beginning of their first year and to choose their courses each semester in consultation with committee members.

Students are encouraged to seek a major adviser who is familiar with the program and the advice of 3/2 Engineering Committee members. Sample curricula for appropriate majors can be obtained from the committee chair or on the Clark Web site. Students intending a self-designed liberal-arts/engineering major may wish to use the 3/2 Engineering Committee as their major advisory committee.

Students interested in 3/2 Engineering must contact the committee chair, Charles Agosta (phone: 508-793-7736, email: cagosta@clarku.edu before they sign up for classes in their first year.

Enrollment at the Engineering School

Students submit a formal application for admission to the engineering school through the 3/2 Engineering Committee during their junior year. Students receiving a positive endorsement from the committee normally can expect admission for enrollment as juniors at the engineering school in the following September. Application for financial aid is made at the same time, and those students receiving financial aid can expect to be supported at levels that are generally consistent with the level of Clark's support during the first three years. However, only Washington University awards financial aid to foreign students, who must rely on other sources of funds while at Columbia or WPI.

Students intending to enroll at WPI should apply as sophomores and may enroll in some engineering courses during their second or third year while still at Clark. Washington University encourages prospective students to enroll in one of their intensive January courses between Clark's first and second semesters.

Major Requirements

In addition to the requirements of the Program of Liberal Studies and their major at Clark (indicated elsewhere in this catalog), students must meet the entrance requirements of the engineering school. These requirements, which are essentially the same for all schools, can be found on the Clark Web site. Detailed questions concerning individual schools can be discussed with committee members.

The additional Clark requirements for the liberal-arts major and Program of Liberal Studies must be met concurrently with the above requirements. Several majors require additional summer-school work at Clark or advanced-placement standing to complete all requirements within the three-year period in residence at Clark. Students who complete a full year of study at the engineering school and who have completed all of Clark's requirements are eligible for the B.A. at the end of the fourth year of study.

ENGLISH

Program Faculty

SunHee Gertz, Ph.D., *Chair*
John Bassett, Ph.D.
James Elliott, Ph.D.
Betsy P. Huang, Ph.D.
Fern Johnson, Ph.D.
Lisa Kasmer, Ph.D.
Winston Napier, Ph.D.
Stanley Sultan, Ph.D.
Virginia Vaughan, Ph.D.

Department Instructors

Louis Bastien, Ph.D.
Timothy Connolly, M.A.
James Dempsey, M.A
Lea Graham, Ph.D.
Jennifer Plante, M.A.
Heather Roberts, Ph.D.
William G. Tapply, M.A.T.
Lucilia Valerio, Ph.D.

Adjunct Faculty

William Ferguson, Ph.D.
Bernard Kaplan, Ph.D.

Emeriti

John J. Conron, Ph.D.
Jessie C. Cunningham, Ph.D.
Serena Hilsinger, Ph.D.

Writing Program

Anne Ellen Geller, Ph.D., Director

Program Overview

The program is primarily designed to meet the needs and interests of English majors and minors, although the variety of courses we offer may also appeal to other students as well. We aim to assist students in developing skills in close reading, critical thinking and effective writing, as well as in acquiring knowledge and experience valuable to any vocation. Moreover, the program encourages the development of a sense of cultural history, sensitivity to literary values, and first-hand knowledge of important authors, works and periods of literature in English.

We advise English majors to take two yearlong historical sequences early on in their programs. Any student only majoring in English should also select—in consultation with his or her adviser—a suitable area of specialization drawing on courses, both inside and outside the English Department (see below).

Majors and minors should note that some courses fulfill more than one requirement. Requirements may also be fulfilled, through an arrangement with the Worcester Consortium of Higher Education, at Assumption College and the College of the Holy Cross. For those interested in studying abroad, majors and minors should contact the Office of Study Abroad Programs regarding our partner program at the University of East Anglia. In addition, the London Internship Program offers a variety of opportunities in fields such as theater and journalism.

For these and other aspects of the program, we strongly urge majors and minors to consult with their advisers.

The English Department is an active member of Clark's Higgins School of the Humanities and encourages students to participate in the school's events and opportunities.

Major Requirements

Nonrequired Preparatory Courses:

- IDND018 Expository Writing/Workshop
- ENG019 The Essay: Reading and Writing/Workshop
- ENG020 Introduction to Literature and Composition/Discussion

Core Requirements:

A minimum grade of C is required to receive major field credit.

A. Historical Sequence

The four courses used to satisfy this requirement must include either the entire sequence ENG140 and ENG141 or the entire sequence ENG180 and ENG181.

1. Each major must take at least two, and can take up to three of the following four courses for major credit:
   - ENG133 Survey of Women Writers I
   - ENG140 Major British Writers I
   - ENG180 Major American Writers I
   - ENG182 African-American Literature I
2. Each major must take at least one, and can take up to four of the following four courses for major credit:
   - ENG134 Survey of Women Writers II
   - ENG141 Major British Writers II
   - ENG181 Major American Writers II
   - ENG183 African-American Writers II

B. Genre Courses

1. Each major must take one of the following courses:
   - ENG110 English Poetry I
   - ENG111 English Poetry II
   - ENG184 American Poetry
2. Each major must also take one of the following courses:
   - ENG135 The Short Story
   - ENG143 Terrible Beauty: The Art of Tragedy
   - ENG144 Drama of the Western Tradition
   - ENG145 Fabulae: The Genre of Romance
   - ENG146 Oliver Twisted: The Literature of the Fantastic

C. Period Requirements

1. Each major must take two courses of literature before 1700, one of which must be at the 200 level, such as:
   - ENG140 Major British Writers I
   - ENG150 Introduction to Medieval Literature
   - ENG250 Medieval Literature Seminar
   - ENG251 Chaucer
   - ENG253 Advanced Shakespeare
   - ENG254 Still Spaces-East Meets West
   - ENG255 Studies in the Renaissance
   - ENG294 History of the English Language
2. Each major must take one 200-level course of literature between 1700 and 1900, such as:
   - ENG263 British Romantic Literature
   - ENG265 Victorian Literature
   - ENG280 Early-American Pop Culture

ENG281 American Literary Renaissance
ENG282 Studies in 19th-Century American Literature
ENG283 Visions of Representation 1860-1920.

3. Each major must take one 200-level course of literature after 1900, such as:
   ENG270 African-American Satirical Novel
   ENG272 Joyce and Lawrence
   ENG274 W. B. Yeats
   ENG276 Ethnic America: Literary and Theoretical Perspectives
   ENG278 Modern Political Literature
   ENG279 Fictions of Asian-American Literature
   ENG291 Harlem Renaissance

D. Seminar on Criticism

Each major must take one 200-level seminar in the theory or practice of criticism, such as:

CMLT251 Seminar in Literary Criticism
ENG240 20th-Century Critical Methods
ENG242 Feminist Critical Theory
ENG248 Contemporary Literary Theory
ENG249 Signs and Crossroads: Semiotic Theory and Practice
ENG252 Cultural Discourses of Advertising
ENG270 African American Satirical Novel
ENG295 Gender and Discourse
ENG340 Introduction to Graduate Study

E. 200-level Courses

Every major's program must include at least four courses at the 200 level in English in addition to the required seminar in criticism (see D, above). A student may count any of the 200-level courses listed under comparative literature toward the English major, which, however, must be approved by the student's adviser in the English Department as being related to the student's overall program of English studies. The 200-level courses of the comparative literature program such as CMLT240 and CMLT251 are especially recommended.

F. Capstone Requirement

All English majors must take the ENG290 Capstone course during the fall semester of their senior year. The course aims to deepen and broaden the English major's knowledge and interpretive sensitivity while helping to prepare her or him for graduate school or professional life.

G. Area of Specialization

As early as possible, in combination with an adviser, the English major should select an area of specialization (at least six courses, four of which are typically fulfilled by core courses in the major).

Descriptions of areas of specialization with lists of required and recommended courses are available from the department.

Areas of specialization include literature written before 1700, 18th- and 19th-century literature, and 20th-century literature. The department also offers areas of specialization in community service, drama, creative writing or journalism, communication studies, education, African-American studies and women's studies. With at least two members of the department faculty, English majors may design their own areas of specialization.

Students may substitute a second major, concentration or a minor for the area of specialization as long as they demonstrate links between the English major and the substituted area of study through one of their courses.

Honors Program

At the end of their junior year, students in whom the faculty have expressed confidence will be invited to work on a yearlong honors thesis during their senior year. Other students who wish to take honors in English should identify an area of interest, consult with an appropriate honors adviser, and apply to the department chair before the end of the junior year.

English Minor

A minor provides a student majoring in another department with general background in English literature, as well as with skills in critical reading and writing. Ordinarily, the chair acts as adviser to minors. The minor in English requires at least six English courses, not including English 020 Introduction to Literature and Composition, as follows:

1. One course in poetry
2. One historical sequence (two courses) from the following:
   ENG133-134 Survey of Women Writers
   ENG140-141 Major British Writers
   ENG180-181 Major American Writers
   ENG182-183 African-American Literature
3. One seminar in criticism from the following:
   ENG240 20th-Century Critical Methods
   ENG242 Feminist Critical Theory
   ENG248 Contemporary Literary Theory
   ENG249 Signs and Crossroads: Semiotic Theory and Practice
   ENG340 Introduction to Graduate Study in English
4. At least two other English courses, one of which must be a 200-level seminar.

Scholarly Research Program

Every year the prestigious American Antiquarian Society, a national research library of American history located in Worcester, offers seminars in specialized topics of interest to those studying American literature. Please consult with Professors Elliott or Napier for more information.

Internship Opportunities

In cooperation with the University's internship office, the English Department supports internships for juniors and seniors. Internships are available both in university offices and beyond the campus—for example, newspapers, news departments of radio and television stations, periodical and book publishers, and communication departments. Please consult with the chair for further information.

Health Professions

In an effort to enhance students' opportunities for entrance into medical, dental and veterinary schools, the Premedical and Predental Advisory Committee has a special arrangement with the English Department, allowing them to major in English while meeting the specific requirements of medical schools. If interested, please consult the chair.

Study Abroad

The English Department has a special arrangement with the University of East Anglia in England as well as with the London Internship Program. For information, please consult with the chair or Clark's Office of Study Abroad Programs.

Graduate Program

The program leading to the Master of Arts degree in English encourages both innovative, individually designed approaches of study as well as traditional approaches to literature. The controlled size of the program fosters an atmosphere of intensive intellectual exchange among faculty and students. Teaching assistantships with tuition remission plus stipend and full- and part-time tuition remission scholarships are available on a competitive basis.

For the Master of Arts, the student must satisfactorily complete at least eight upper-level courses or seminars, which include 340 Introduction to Graduate Study, and 397 Master's Thesis. Graduate students will receive 300-level designations for graduate-level course work in those 200-level courses deemed suitable for graduate credit and for which they are expected to complete extra graduate requirements. Students are also required to register for and participate in 390 Departmental Colloquium (no course credit), where they will present working drafts on some aspect of their thesis topics. In addition to completion of the master's thesis (397), the student must pass a final oral examination.

Writing Program

Writing courses, limited in size to ensure attention to each student, are listed as "Interdepartmental/Nondepartmental (IDND)" because the teaching of writing at Clark is considered the responsibility of the entire faculty, not of any one department. Verbal-expression courses are listed in various departments.

IDND018 Expository Writing/Workshop

Centered on student writing, this course teaches the writing process, emphasizing revision. Students write informal exercises and essays. Course required of some students. Staff/Offered every semester

Courses

ENG019 The Essay: Reading and Writing/Workshop

Students will read and consider contemporary essays, as well as write a variety of different types of essays, from academic and argumentative essays to more familiar, exploratory essays. Meets the verbal-expression requirement. This course emphasizes revision. Ms. Geller/Offered every other year.

ENG020 Introduction to Literature and Composition/Discussion

Students read and write about basic elements of poetry, fiction and drama. Small classes and limited reading lists help establish an atmosphere conducive to significant class discussion; emphasis is placed on writing effectively about literature. Meets the verbal-expression requirement and is strongly recommended for prospective English majors. No student may take more than one section of ENG020 for credit. Staff/Offered every semester

ENG021 Literacy, Learning, Writing/Lecture, Discussion

What is literacy? Is it more than reading and writing? How should it be taught and who should learn? This class will introduce students to the challenging questions that inform contemporary literacy studies. In the first part of the course, students will read histories and theories of literacy. As the course proceeds, students will also think about their own literacies by constructing literacy autobiographies. Finally, by taking part in a community literacy project, students will reflect on their own roles as they engage with the literacies of their communities. Meets the verbal-expression requirement. Ms. Geller/Offered every other year.

ENG105 News Writing/Workshop

Covers the basics of news writing, from reporting an event to writing an obituary. Students learn how to collect information, conduct interviews and organize writing into crisp news copy. Class work includes weekly deadline writing assignments. Homework: weekly writing exercises based on textbook examples and field assignments, as well as readings from texts and daily newspapers. First-year students by permission. Mr. Connolly/Offered every year

ENG106 Creative Writing: Fiction/Workshop

For students who are inspired to write short or long stories (including novels). Equal emphasis on writing well and creating boldly, with focus on giving and receiving criticism in the workshop format. Students will be encouraged to "find their voices" by experimenting with style, genre and structure. Mr. Tapply/Offered every semester

ENG107 Creative Writing: Poetry/Workshop

A significant part of the class will be dedicated to exploring each student's poetry through a constructive workshop approach. We will experience how poetry comes alive in voice and use these insights to develop both oral and written media of expression. Students are expected to bring creative work to each class. As the semester progresses, we will experiment with ways to edit a gathering of poems into a coherent manuscript. Finally, we will also talk about the nuts, bolts and jolts of getting published, as well as finding venues for public reading. This course could benefit both beginning and experienced writers. Not open to first-year students. Ms. Graham/Offered every year

ENG110 ENGLISH POETRY I/LECTURE, DISCUSSION

Focuses on the development of important forms, themes and movements in English poetry. This course, required for the English major, emphasizes intensive study and discussion of individual poems. It includes a series of essays on assigned topics and a sequence of poetry-writing exercises designed to enhance understanding of the demands of poetry form. Fulfills the verbal-expression requirement. Strongly recommended for English majors in the first or second year; seniors by permission.
Ms. Graham/Offered every semester

ENG113 LITERATURE OF BASEBALL/FIRST-YEAR SEMINAR

This course, which fulfills a verbal-expression requirement, will focus on the history of writing about baseball. This game has captured writerly imaginations virtually from its inception—Walt Whitman and Mark Twain wrote about it in the 19th century, Updike and Damon Runyon in the 20th, for example. Using a new anthology from the Library of America, we will explore the many ways American authors have seen the game as a metaphor for American experience and, particularly since the advent of TV broadcasts, have "worshipped at the Church of Baseball." Five short papers required, plus a creative piece about the student's participation in or spectatorship of the game. Mr. Elliott/Offered periodically

ENG114 AMERICAN TALK/FIRST-YEAR SEMINAR

This seminar explores the ways in which talk is associated with groups and situational identities in the U.S. The course revolves around understanding the dynamic and diverse nature of talk as a cultural code and resource. Topics include origins of U.S. English, varieties within U.S. English, styles of speaking, the encoding of regional and social identities in speaking, mass media representations of American talk, and public discourse forms such as presidential debates. Ms. Johnson/offered occasionally

ENG120 INTRODUCTION TO SHAKESPEARE/LECTURE, DISCUSSION

Designed for any student who wants an introduction to Shakespeare. Seven major plays are read and discussed in detail with an emphasis on performance. Ms. Vaughan/Offered every year

ENG133 SURVEY OF WOMEN WRITERS I/LECTURE, DISCUSSION

Examines how women writers before 1900 address, confront, avoid, subvert and question traditional notions of gender, culture, domesticity, history, ethnicity and sexuality. Close attention is paid to textual reading, the historical and intellectual context of works, and different critical approaches to women's writing. Authors include Behn, Burney, Austen, Sedgwick, Chopin, Gilman, Foster and Wilson. Prerequisite: verbal-expression course.
Ms. Valerio/Offered every other year

ENG134 SURVEY OF WOMEN WRITERS II/LECTURE, DISCUSSION

Examines developments in British and American prose fiction by women in the 20th century. Authors include Cather, Woolf, Lessing, Rhys, Gordimer, Morrison, Winterson, Cisneros and Kincaid. Close attention is paid to textual reading and defining, revising and challenging traditional definitions and expectations of women's writing on various levels: thematic, linguisitic and formal. The course also addresses current critical approaches to women's writing. Prerequisite: verbal-expression course. Ms. Valerio/Offered every other year

ENG135 THE SHORT STORY/LECTURE

This course involves intensive reading of stories that exemplify a variety of fictional methods and affords the student some knowledge of the history of this literary type. Attention will be paid to the international scope of the short story, particularly in the 20th century.
Mr. Elliott/Offered every year

ENG140 MAJOR BRITISH WRITERS I/LECTURE, DISCUSSION

The lecture/discussion sequence ENG140-141 takes an historical approach to British literature from the Middle Ages to the dawn of the 20th century. This course concentrates on medieval and early modern English literature (1000-1700); it will examine the cultural and literary construction of the hero and the lover in the writings of the Beowulf poet, Chaucer, Sidney, Spenser, Shakespeare, Donne, Wroth and Milton (among others). Mr. Bastien/ Offered every year

ENG141 MAJOR BRITISH WRITERS II/LECTURE, DISCUSSION

This course examines British literature by major authors from 1700 to the late-19th century, concentrating on urban representation and the urban sensibility as expressed in drama, the novel, poetry and prose nonfiction. It will use the idea of the city for an exploration of what it means to be modern. Texts to be studied will include works by Wycherly, Congreve, Centlivre, Addison, Steele, Johnson, Smollett, Montagu, Baillie, Blake, Wordsworth, Dickens, Bronte and Marsh. Staff/Offered periodicaly

ENG143 TERRIBLE BEAUTY: THE ART OF TRAGEDY/LECTURE, DISCUSSION

This course examines the historical evolution of tragedy and its central place in Western literary expression. Beginning with the three classical exemplars, Aeschylus, Sophocles, and Euripides, we trace tragedy through Roman closet drama (Seneca), Renaissance masters (Shakespeare) and European interpretations (Racine, Schiller), to both modern experimental tragedy (Miller) and modern attempts to revive the classical model (Eliot). Mr. Bastien/ Offered every other year

ENG144 DRAMA OF THE WESTERN TRADITION/ LECTURE, DISCUSSION

Surveys the traditional dramatic canon of the western tradition. Course readings will include plays by Sophocles, anonymous writers of the medieval cycles and morality plays, Marlowe, Shakespeare, Webster, Jonson, Molière, Congreve and Sheridan. Ms. Vaughan/Offered every other year.

ENG145 FABULAE: THE GENRE OF ROMANCE/ LECTURE, DISCUSSION

This course examines the tradition of the romance genre, from classical antiquity to the present. Texts read range from early Greek "novels" and Medieval metrical romances, through the Gothic tale and Romantic poetry to contemporary forms such as science fiction, fantasy and horror. Along the way, students will be able to see how the general conservative elements of a given literary form are transmuted to accommodate a number of specific contexts. Prerequisite: verbal-expression course. Mr. Bastien/Offered every other year

ENG146 OLIVER TWISTED: THE LITERATURE OF THE FANTASTIC/LECTURE, DISCUSSION

This course investigates the development of the idea of the fantastic in both modern and postmodern fictions. From the theoretical considerations of such critics as Todorov, we read through texts that exemplify the variegated modes the fantastic can take, from the "ghost story" (Blackwood), fantasy (Ursula Le Guin), science fiction (Ballard) and fairy tale (Angela Carter), to "magical realism" (Marquez), the utopian/dystopian novel (Atwood) and the "experimental" fiction of Borges, Calvino and Barthelme. Mr. Bastien/Offered every other year.

ENG150 INTRODUCTION TO MEDIEVAL LITERATURE/LECTURE, DISCUSSION

Introduces western European medieval literature, touching on classical roots and contemporary counterparts in the process. Topics covered may include literary forms (epic, romance), social concerns (religion, the role of women, politics) and myth. Works read and discussed are selected from Anglo-Saxon, Anglo-Norman, Celtic and Middle English authors, and range from Beowulf and Marie de France's *Lais* to the *Gawain*-poet and Chaucer.
Mr. Bastien/Offered every year

ENG180 MAJOR AMERICAN WRITERS I/LECTURE, DISCUSSION

The sequence ENG180-181 takes a historical approach to American literature from Puritanism to the present. This course concentrates on early American literature, circa 1620-1860, with texts by Edwards, Rowlandson, Franklin, Douglass, Emerson, Dickinson, Whitman, Hawthorne, Melville, Stowe and others are read. Prerequisite: verbal-expression course recommended. Ms. Roberts/Offered every year

ENG181 MAJOR AMERICAN WRITERS II/ LECTURE, DISCUSSION

This course concentrates on the evolution of American literature from circa 1860 to the present. Texts by such writers as Melville, Twain, Crane, Wharton, James, Fitzgerald, Hemingway, Faulkner, Morrison and Kingston are read. Prerequisite: verbal-expression course. Ms. Huang/Offered every year

ENG182 AFRICAN-AMERICAN LITERATURE I/ LECTURE, DISCUSSION

Addresses major periods and principal authors of the African-American canon. Readings may cover an historical span that ranges from the 18th century to the present or may represent themes traditionally specific to African-American writers. Accordingly, students are expected to gain a chronological as well as a culturally contextual appreciation of the literature produced by black writers. Mr. Napier/ Offered every year

ENG183 AFRICAN-AMERICAN LITERATURE II/ LECTURE, DISCUSSION

Explores the aesthetic modes configuring the evolution of African-American literature in the 20th and 21st centuries, especially the novel. Writers studied include Toomer, Johnson, Hughes, Hurston, Wright, Ellison, Baraka, Morrison, Bambara and Naylor. An analysis of the dominant themes, moods and aesthetic assumptions often indicative of black American literature is stressed. Mr. Napier/ Offered every year

ENG184 AMERICAN POETRY/DISCUSSION

Concentrates on the differing experiences of the natural environment defined by narrative, incantational and meditative poetry. The poetry studied includes the Navajo Night Chant and the work of Gary Snyder, Derek Walcott, Mary Oliver, Joseph Komunyakea, Rita Dove and others. The course teaches and requires knowledge of the art of the image, the image sequence and the music of 20th-century American poetry. Staff/Offered periodically

ENG196 ORAL ADVOCACY/LECTURE, WORKSHOP

Centers on oral presentation of current controversial issues and response to rhetorical dilemmas. Topics include: rhetorical situations and audience analysis; forms of argument in persuasive speaking; development of arguments with evidence; and ethical communication practices. Students prepare three major speeches and complete a number of exercises.
Ms. Johnson/Offered every other year

ENG202 FEATURE WRITING I/WORKSHOP

An introduction to the art and craft of feature writing. The feature story is a rendering of reality into words, which, when done well, has its feet in both journalism and literature. We will discuss the elements of the feature story as well as its various types and formats. We will learn how to find and develop stories, how to perform background research on subjects and how to interview. Course work will include reading and discussing feature stories and assigned texts. Students' stories will be read and discussed in class. Prerequisites: verbal-expression course; first-year students by permission.
Mr. Dempsey/Offered every year

ENG203 FEATURE WRITING II/WORKSHOP

Develops the skills learned in Feature Writing I and leads students toward publication of their work. We will study various outlets for feature stories and hear from editors and writers on breaking into markets. We will examine other forms of writing for techniques such as narrative, description, exposition and dialogue that may be put to use in own work. Libel and ethics will also be covered. Students should expect some demanding assignments. The aim is to produce pieces vibrant with the energy of the real. Prerequisites: Feature Writing I or permission. Not open to first-year students. Mr. Dempsey/Offered every year

ENG204 WRITING FOR MAGAZINES/WORKSHOP

This course is for students who want to learn how to write articles they might actually sell to periodicals. We will emphasize such vital skills as: analyzing the markets, coming up with fresh ideas, slanting to the audience, researching and interviewing, creating killer leads, composing query and cover letters, submitting professional-looking manuscripts, writing to length, meeting deadlines and, especially, writing well. Grades will be based on weekly writing assignments, participation and attendance, and evidence of improvement. Mr. Tapply/Offered every year

ENG205 CULTURE AND THE NEWS/LECTURE, DISCUSSION

Examines the social, cultural, political and economic factors that go into constructing what we call news in North America and specifically in the United States. This course also examines the "nature" of news media, their purpose, content and uses in late-20th-century and early-21st-century America. Some of the major questions this course attempts to address include: How is news content determined and by whom and for what reasons? Who "owns" the news? How do news agencies and institutions "cover" local, national and international events and from what perspectives and why? Ms. Stephenson/Offered every year

ENG206 WRITING THE NOVEL I/WORKSHOP

This is a two-semester sequence for students who are serious about writing a novel. In a workshop format, we will explore the elements of long fiction (character, plot, theme, setting, etc.), writing styles and techniques, and issues such as giving and receiving criticism, revising and overcoming writer's block. The first semester will focus on assembling the universal elements of fiction into an integrated concept for a novel. Students are not required to take both semesters. Mr. Tapply/Offered every other year

ENG207 WRITING THE NOVEL II/WORKSHOP

The second semester of this two-semester sequence will focus on regular productive writing. At the end of the course, students will have completed a significant beginning to their novel. Students are not required to take both semesters, but if they chose to take only the second one, they need permission of the instructor. Mr. Tapply/Offered every other year.

ENG215/ENG315 LANGUAGE AND CULTURE IN THE U.S./LECTURE, DISCUSSION

Using a cultural perspective on language, addresses varieties of language use and their consequences in the United States. Topics include demographics in sociolinguistic perspective; the systematic nature of language; language and culture of African-Americans, Asian-Americans, Hispanic Americans; gender patterns in language; bilingualism and multilingualism in the United States; and the policy implications of language diversity. Ms. Johnson/Offered every year

ENG230 SOUTHERN WRITERS OF THE 20TH CENTURY/SEMINAR

Much of the best writing in the United States in the 20th century came out of the South, a section that is itself quite diverse economically, demographically, politically and culturally and a region that changed a great deal during that century. Because of sectional conflict, the Civil War and the Reconstruction experience, it is also the region most self-conscious about itself as a region. Study of some of the strongest writers provides an opportunity for rewarding examination of relationships among social, racial, economic and literary factors as well as an opportunity to compare literary features of their works with those of writings from other parts of the country. Focus is on writers working between the 1920s and the early 1960s, a period sometimes called the Southern Renascence. Mr. Bassett/Offered periodically

ENG231 WILLIAM FAULKNER/SEMINAR

This course will focus on the Yoknapatawpha fiction of William Faulkner, those novels and stories set in "the little postage stamp of native soil" that he created and developed over more than three decades. As probably the stongest American novelist of his generation, certainly the one most clearly canonical, Faulkner invites consideration from many perspectives and, indeed, his fiction has been the chosen subject for some very good commentary by critics and scholars of almost every poststructuralist as well as more traditional perspective. We will consider Faulkner as Modernist, as American writer, as Southerner and in any other way our discussion leads us. Mr. Bassett/ Offered periodically

ENG239/ENG339 ALIENS AND OTHERS IN SCIENCE FICTION/SEMINAR

This course examines figurations of aliens and outsiders, treatments of otherness and difference and dramatizations of alien encounters and "first contacts" in science fiction and film. Short fiction and novels by H.G. Wells, Arthur C. Clarke, Robert A. Heinlein, Joanna Russ, Samuel R. Delaney, Frederick Pohl, Stanislaw Lem, Octavia E. Bultler, Orson Scott Card, Maria Doria Russell, Ted Chiang, among others, will be read. Feature films and television series, which deal with alien contact, including "Alien," "Close Encounters of the Third Kind," "Contact," "Star Trek" and others will also be studied. Course requirements include weekly response papers, class presentation and a seminar paper. Ms. Huang/Offered periodically

ENG240/ENG341 20TH-CENTURY CRITICAL METHODS/SEMINAR

Examines the primary movements in 20th-century European and American literary criticism and critical theory. Beginning with the Formalist School and moving through New Criticism, the Marxist School, Structuralism, the Black Arts Movement, Feminism, Deconstruction and other manifestations of poststructuralism, investigates the philosophical assumptions that have reconfigured contemporary literary studies away from mere explication toward a concern with the epistemological, cultural and ideological groundings of the text. Mr. Napier/Offered every year

ENG242/ENG343 FEMINIST CRITICAL THEORY/ SEMINAR

Focuses on the canon of postmodern feminist literary theory produced by the African-American feminist/womanist school, the *ecriture* feminine school, the Lacanian/Freudian school and the American generalist school. Target issues include authorial power and revisionary identities, body as text, deconstruction as feminist practice, principles of psychopolitical liberation, racialized gender and resistance to the universalizing traditions of phalloculturalism. Mr. Napier/Offered periodically

ENG245/ENG345 MYTHOPOETICS/SEMINAR

This course examines modes and qualities of literary expression where we will find that narratives and poetry convey different expectations, which are also embedded in a variety of worldviews. Frequently, however, authors will attempt to craft these expectations and worldviews to accommodate nontraditional visions. Toward this end, we will read works by authors who strive to come to grips with their own experiences of the world. Texts will include Eliot's "The Waste Land," Woolf's "The Waves," Plath's "Ariel," representative poems by Stevens and Yeats and selections from Joyce's "Ulysses." Mr. Bastien/Offered every other year

ENG248/ENG348 CONTEMPORARY LITERARY THEORY/SEMINAR

Investigates and develops several theoretical approaches to literature in the late-20th century, attempting to provide glimpses into the range of theoretical issues and concerns. May also look at a literary text in relation to theory. General areas of study are selected from among the following: textual criticism, new criticism, psychoanalysis/reader response, structuralism, poststructuralism, feminism, postcolonialism, postmodernism, gay and lesbian theory. Mr. Elliott/Offered every year

ENG249/ENG349 SIGNS AND CROSSROADS/ SEMINAR

Approaches semiotic theories comparatively from historical as well as theoretical points of view and practices them by drawing on literature, film, advertising and drama. Ms. Gertz/ Offered periodically

ENG250/ENG350 MEDIEVAL LITERATURE/ SEMINAR

Explores medieval literary culture of Western Europe by means of literary theoretical and classical texts. Ms. Gertz/Offered periodically

ENG251/ENG351 CHAUCER/SEMINAR

Guides the student through "Book of the Duchess," "The House of Fame," "The Parlement of Fowls," some "Canterbury Tales" and "Troilus and Criseyde." All texts are taught in Middle English and selections may vary. (No prior knowledge of Middle English required.) Ms. Gertz/Offered periodically

ENG252 CULTURAL DISCOURSE OF ADVERTISING/ LECTURE, DISCUSSION

Focuses on the ways in which discourse elements in advertising draw upon, circulate and create new cultural codes. Patterns and codes of "verbal imaging" that structure ads are explored in the context of visual properties, intertextualities and ideology. Through the perspective of Critical Discourse Analysis, emphasis is given to the relationship of advertising text to larger cultural discourses and ideology. Prerequisite: COMM101. Ms. Johnson/ Offered every other year

ENG253/ENG353 ADVANCED STUDIES IN SHAKESPEARE/SEMINAR

Explores recent trends in research and criticism of Shakespeare's texts. Topics and focus vary from year to year, but include feminist and new historicist interpretations, performance criticism and theater history. Ms. Vaughan/ Offered every year

ENG254/ENG354 STILL SPACES—EAST MEETS WEST: CONTEMPLATIVE PRACTICE IN THE CLASSROOM/SEMINAR

This course aims to explore and gain experience of contemplative practices as they have evolved in both European and Asian cultures. In addition to reading and writing about key texts that engage the "still space" outside the classroom, students will participate in a yoga course for seven weeks. The concepts of "ki" (centeredness) and "tao" (the way) will be probed through the tools of the metaphor and the narrative. Ms. Gertz/Offered periodically

ENG255/ENG355 STUDIES IN THE RENAISSANCE/SEMINAR

Explores the poets, playwrights and prose writers who shaped the English literary Renaissance. Authors may include Thomas More, Philip Sidney, Edmund Spenser, Christopher Marlowe, Mary Wroth, John Donne, William Shakespeare, Elizabeth Cary, George Herbert, Ben Johnson, Thomas Middleton and John Webster. Their writings are placed in the gendered sociopolitical context of the 16th and 17th centuries. Prerequisite: permission of the instructor. Ms. Vaughan/Offered every other year

ENG256/ENG356 SHAKESPEARE FROM PAGE TO STAGE/LECTURE, WORKSHOP

Using four major plays, this course will provide historical context for understanding Shakespeare's texts, exposure to close analysis of Shakespeare's language (from both poetic and performance perspectives), as well as experience in acting Shakespearean roles. Students will be required to rehearse and perform scenes and monologues from four plays, concentrating on heightened language while maintaining the illusion of the first-time experience. Simultaneously, students will explore the texts' historical contexts, looking in particular at early modern constructions of gender, kinship, social status and race. Ms. Vaughan and Mr. DiIorio/Offered periodically

ENG257/ENG357 LANGUAGE AT ISSUE/SEMINAR

Centers on current language policy issues in the United States. Focuses on issues such as ebonics, policies that dictate "English Only" in the workplace and other situations, language translation in the legal process, bilingual education and efforts to make English the official language of the United States. Issues are considered from the perspective of academic scholarship, media representations, legislative actions and legal perspectives. Ms. Johnson/ Offered periodically

ENG263/ENG363 BRITISH ROMANTIC LITERATURE: RACE AND REVOLUTION IN ROMANTICISM/SEMINAR

The period from the end of the 18th century to the mid-19th century was one of great expansion and empire building for England, but at what cost? In 1772, after the Mansfield Judgement proclaimed that England was "a soil whose air is deemed too pure for slaves to breathe in," the issue of slavery, as well as the issue of British identity, became particularly contested. This course will examine issues of slavery and colonial rule as well as the ideals of political and social freedom through poetry, novels and memoirs of the Romantic period. We will examine works that speak to the issues of slavery and revolution, such as the poetry of William Blake, William Wordsworth, Samuel Taylor Coleridge and Percy Shelley; Mary Shelley's "Frankenstein" and Jane Austen's "Mansfield Park," and narratives by former slaves, for example, "The Interesting Narrative of Olaudah Equiano" and "The History of Mary Prince." We will also be looking at the ways in which notions concerning the British Empire impacted attitudes towards Englishness through works such as Thomas De Quincey's "Confessions of an English Opium-Eater," attitudes that still hold sway today. Particular attention will be paid to the ways in which gender affected these issues. To understand the cultural context of empire, the course will incorporate postcolonial criticism and cultural analysis. Ms. Kasmer/Offered periodically

ENG265/ENG365 VICTORIAN LITERATURE/SEMINAR

Authors studied may include Charles Darwin, Charles Dickens, Alfred Tennyson, John Stuart Mill, Charlotte Brontë, Thomas Hardy and Oscar Wilde, as well as less familiar but important people such as Henry Mayhew and Harriet Taylor. Staff/Offered periodically

ENG270/ENG370 AFRICAN-AMERICAN SATIRICAL NOVEL/SEMINAR

This course offers a survey of the emergence and development of the African-American satirical novel from 1936 to the present. Students will have the opportunity to study selected works that black writers have produced to critique with disparaging humor the absurdities of interracism, intraracism and other forms of social folly and injustice. As such, students will explore how black novelists use satire to produce sociocultural commentary in a manner theoretically distinct from that located in the traditional black protest novel. By studying ten selected novels, students will gain a chronological as well as a constitutional sense of African-American Juvenalian and Horatian satire. Accordingly, students are expected to emerge with an understanding of the dominant aesthetic assumptions, themes and critical moods defining black-American narrative satire. Mr. Napier/Offered every other year

ENG272/ENG372 JOYCE AND LAWRENCE/SEMINAR

Introduces the art of the two writers. Poems, short stories and novels by both are studied. Mr. Sultan/Offered periodically

ENG274/ENG374 W. B. YEATS/SEMINAR

Studies the accomplishments of Yeats. The principal concern is his poetry, but attention is given to his dramatic and other writings. Also studied are his thoughts and beliefs along with his cultural role in Ireland and the world during his time. Prerequisite: either a poetry course or permission of the instructor.
Mr. Sultan/Offered periodically

ENG276/ENG376 ETHNIC AMERICA: LITERARY AND THEORETICAL PERSPECTIVES/SEMINAR

This seminar investigates the ways in which the "American" and the "ethnic" continue to be perceived as mutually exclusive identity categories in contemporary American fiction. Despite the nation's longstanding history as a nation of immigrants and its forecasted future as the most multiethnic and multilingual country in the world, America continues to resist the incorporation of its ethnic populations through overt and covert means of division, estrangement and alienation. Students will read a wide range of texts by "ethnic" and "nonethnic" writers and theorists to explore the ways in which the nation's ethnic constituents are continually changing its social, political and cultural landscapes as well as the definitions of its national identity. They will also consider whether the dichotomous relationship between the American and the ethnic is real or imagined, and why and how the dichotomy persists. Ms. Huang/Offered every other year

ENG277/ENG377 RACE AND GENDER IN AFRICAN-AMERICAN LITERARY THEORY/ DISCUSSION

Covering the development of African-American literary theory from the 1970s to the present, this course will examine the ways in which prevailing assumptions of race and gender have influenced the theoretical statements on literary aesthetics and culture produced by African-American intellectuals. Various schools of thought as represented by these theorists include cultural nationalism, structuralism, feminism, poststructuralism and masculine studies. Mr. Napier/Offered every year

ENG278/ENG378 MODERN POLITICAL LITERATURE: CLASS, RACE, GENDER, ETHNICITY/ SEMINAR

Covers political fiction, poetry and plays of the past century, principally in the United States, Great Britain, Ireland, France, Germany, Russia, Czechoslovakia, Spain and certain African- and Latin-American countries. Works advocating and attacking political formulations about class, nationality, race and sex are studied. No prior knowledge of politics or political theory is necessary. Mr. Sultan/Offered periodically

ENG279/ENG379 FICTIONS OF ASIAN AMERICA/ SEMINAR

With particular emphasis on the multiple meanings of "fiction," this seminar examines the ways in which the Asian-American identity is constructed, imagined and contested in American literature and popular culture. Analyses will focus primarily on how texts and films produced within the last decade maintain or challenge established boundaries of the Asian-American identity. Specific issues to be investigated include the model minority discourse and the demands of assimilation and citizenship; ethnic authenticity and hybridity; gender roles and sexual anxieties; cultural memory and nostalgia; and the commodification of Asian cultures and identities.
Ms. Huang/Offered every other year

ENG281/ENG381 AMERICAN LITERARY RENAISSANCE/SEMINAR

Focuses on the turbulent decades of the 1850s and the manner in which this period has been framed by 20th-century critics as the era of America's literary "flowering." After examining F. O. Matthiesen's seminal thesis, we will read a number of critical essays questioning the literary and political assumptions that helped canonize certain of the period's writers while excluding others. Reading works by major writers such as Dickinson, Hawthorne, Melville, Douglass and Stowe, we will explore how these writers' dialogues with one another shed light on the debate over how we should read them today. Staff/Offered every year

ENG282/ENG382 STUDIES IN 19TH-CENTURY AMERICAN LITERATURE/SEMINAR

An historical analysis of canonized and non-canonized American works from the second half of the 19th century. Historical contexts will be examined to explore the progression of interpretations directed at these works up to the present time. Mr. Elliott/Offered periodically

ENG283/ENG383 VISIONS OF REPRESENTATION: 1860-1920/ SEMINAR

Explores the problematic assumptions of literary representation underlying American realism through selected works of American writers. Conventional interpretations of realist writing are often challenged by issues of race, class, gender and cultural contexts. Examines works by Twain, Howells, James, Dreiser, Jewett, Cather, Cooke, Chopin and others. Mr. Elliott/Offered every other year

ENG290 CAPSTONE/SEMINAR

The capstone course aims to deepen and broaden each senior major's knowledge and interpretive skills. Time will be spent on those aspects of English or American literature that the department feels every major should know. Throughout the semester, each student will work on a paper of his or her choosing (e.g., a research paper for another seminar, a part of the honor's thesis). The literary text that will function as our touchstone throughout the semester is Dante's "Divine Comedy." Seniors only. Ms. Gertz/Offered every year

ENG291/ENG391 HARLEM RENAISSANCE/ SEMINAR

Introduces the development of African-American aesthetics and literature as they evolved from roughly 1920 to 1935. The defining historical forces of the 19th century as well as those of the early-20th century are explored as auxiliary concerns for the focused examination of the major and minor figures comprising this movement. This course will also examine the Harlem Renaissance women writers and their works which, until recently, have remained largely unknown. Mr. Napier/Offered periodically

ENG294/ENG394 HISTORY OF THE ENGLISH LANGUAGE/SEMINAR

Examines changes in English mainly during the Anglo-Saxon and medieval periods. In addition to learning phonological and grammatical characteristics of the language during each period, the student examines language as a mirror of culture. Ms. Gertz/Offered periodically

ENG295/ENG395 GENDER AND DISCOURSE/ SEMINAR

Focuses on how cultural conceptions of gender guide language use for males and females and on ways in which discourse in its cultural context constructs gender. The implications for language use of ideology, enculturation and socialization patterns, dominance and inequality, and cultural diversity are considered. Both theory and research are covered and students conduct their own research projects.
Ms. Johnson/Offered every year

ENG297 HONORS IN ENGLISH: SENIOR YEAR

Invited and interested students should identify an area of interest with an adviser and apply in writing to the department chair with a brief description of the project before the end of the junior year. Honors in English normally carries two credits. With the adviser's approval, students should register as ENG297 Honors in English for one credit in each of the two semesters of their senior year. The adviser and the student will agree on the project's stages. However, the department requires that a completed draft be turned in by the first day of the spring semester. The final thesis is due three weeks before the last day of the spring semester classes. The department requires one copy of the final thesis. A second reader, chosen by the student and the adviser, participates in the final evaluation. Details are available in the handbook for English majors. Staff/Offered every year

ENG298 INTERNSHIPS

Offered for variable credit. Staff

ENG299 DIRECTED STUDY

When asking a faculty member to sponsor directed study courses (299), the student should: 1) demonstrate competence to deal with the materials as literature and 2) present a well thought-out proposal. The student must take the initiative in selecting readings or carrying out the special project. Offered for variable credit. Staff

ENG300 PEDAGOGY I

A one-on-one with a departmental faculty member on pedagogy. TAs and lectors only.

ENG301 PEDAGOGY II

An advanced one-on-one with a department faculty member enabling the graduate student to acquire expertise in teaching. TAs and lectors only. Prerequisite: ENG300

ENG302/ENG303 PEDAGOGY III & IV

For second-year graduate students who have been awarded a teaching assistantship or a lectorship. Advanced mentoring and classroom assignments as arranged with individual department faculty members. Information available from the chair. Prerequisite: ENG300 and ENG301.

ENG340 INTRODUCTION TO GRADUATE STUDY IN ENGLISH/SEMINAR

Examines certain fundamental aspects of literary theory and considers the nature of and relationships among the three principal areas in the discipline—bibliography and textual analysis, literary history, and literary criticism emphasizing theory. M.A. candidates not specifically exempted are required to take this course. Seniors by permission of the instructor. Mr. Sultan/Offered every fall semester

ENG342 GRADUATE SEMINAR: SPECIAL TOPICS

This seminar will be offered on a rotating basis by full-time faculty. Topic to be announced. Offered periodically

ENG390 DEPARTMENTAL COLLOQUIUM

Provides graduate students with guidance, expertise, and resolution for the writing of the master's thesis. The chief requirement is an oral presentation, ordinarily given in the student's final semester of course work. Participation and registration are required; however, the colloquium does not carry course credit and is not included as one of the eight courses needed to fulfill M.A. requirements. Ms. Gertz/Offered every semester

ENG397 MASTER'S THESIS

Prerequisite: permission of thesis adviser. Staff/Offered every semester

ENG398 GRADUATE INTERNSHIPS

Staff/Offered for variable credit

ENG399 GRADUATE DIRECTED STUDY

Staff/Offered for variable credit

FOREIGN LANGUAGES AND LITERATURES

Program Faculty

Michael Spingler, Ph.D., *Chair*
Maria Acosta Cruz, Ph.D.
Belén Atienza, Ph.D.
Paul Burke, Ph.D.
Marvin D'Lugo, Ph.D.
Carol D'Lugo, Ph.D.
William Ferguson, Ph.D.
Odile Ferly, Ph.D.
Everett Fox, Ph.D.
Beth Gale, Ph.D.
Kenneth Hughes, Ph.D.
Dorothy Kaufmann, Ph.D.
Walter Schatzberg, Ph.D.
Daniel Jiro Tanaka, Ph.D.

Adjunct Faculty

Marcia Butzel, Ph.D.

Part-time Faculty

Tzilla Barone, B.A.
Minxia Li, B.A.
Constance M. Montross, Ph.D.
Catherine C. Quick Spingler, M.A.
Ivy Sun, M.A.
Alice Valentine, M.A.

Emeriti

Michiko Aoki, Ph.D.
Raymond E. Barbera, Ph.D.
Hartmut Kaiser, Ph.D.

Program Overview

The Foreign Languages and Literatures Department is part of the Alice Coonley Higgins School of Humanities. The program investigates how peoples and nations express themselves through language, literature and other cultural phenomena. The interdisciplinary spirit of the program illuminates the relationship between national literatures and other areas of the humanities and social sciences.

The major is offered in French and Spanish. It is also possible, at the department's discretion, to major in more than one language (the combined foreign languages major). A student-designed major in German is also available (see page 7).

There are majors available in comparative literature and ancient civilization as well. Though based in foreign languages and literatures, these two programs—together with the minor offered by ancient civilization—are described elsewhere in the catalog under their own headings.

Major Requirements

1. Eight courses above the intermediate level. In French, major credit is given for courses above FREN106; in German, above GERM102; in Spanish, above SPAN127.

   The eight required courses include:
   - An introductory-level course in literature
   - A course in culture criticism
   - For Spanish majors, an advanced grammar and composition course (SPAN237 or the equivalent); for French majors, FREN136 or 137
   - The Advanced Topics course (297)
   - At least two courses taken in a Clark-sponsored or Clark-approved study-abroad program (This requirement may be waived in special circumstances.)
   - At least four of the eight required courses must be taken in residence at the Worcester campus.

2. Five related courses, at least one of which must be CMLT130 The National Imagination.

   These five related courses are to be selected with the major adviser. They might be courses in other languages and literatures, or in subjects further afield that enrich the student's understanding of core material. When the major program is concentrated in one language, a reading knowledge of a second language is strongly recommended. Only course grades of C or better may be counted toward the major.

Requirements for the Combined Foreign Languages Major

- Five courses in each of two languages, chosen from the list of courses that would count toward a single-language major (GERM103 and above; FREN120 and above; SPAN131 and above)
- The Advanced Topics course (capstone course, numbered 297) in at least one of the two language areas chosen
- One course in Comparative Literature, normally the core course (CMLT130) required of all our majors
- Four related courses, as determined in consultation with the student's major adviser
- At least two units of study abroad in a culture in which one of the target languages is spoken. Ordinarily, courses taken abroad may be counted toward the five required courses in each language area.

Honors Program

Honors in Foreign Languages and Literatures (Majors Only)

Majors who have done well in their Advanced Topics course (297) are invited to do an honors project in the senior year. Students wishing to work for honors should: 1) determine a suitable topic, in consultation with the major adviser, 2) find a faculty supervisor in the appropriate area of study (it may or may not be the major adviser) and 3) secure the permission of the department chair. A second faculty reader will participate in the final evaluation of the honors project.

Applicants for honors should ordinarily ask the chair's permission before the end of the junior year. (Extensions of this deadline may be granted in special circumstances.) The honors project supervisor and the student are expected to agree on a work schedule, but in any case a preliminary draft of the project must be completed by the first Monday in April. The final version is due one week before the last day of classes.

An honors project counts as one unit of credit.

Foreign Languages Minor

A minor program in foreign languages and literatures is offered in French, German and Spanish.

To qualify, a student must complete six courses in the chosen discipline at a level of difficulty that would count toward a major in that field. Some courses may be replaced by courses outside the field of study but related to it (a course in Latin-American history, for example, might be counted as a related course toward a minor in Spanish). Advanced Topics courses required of majors (FREN297, GERM297, and SPAN297) are not required for the minor, but they may be taken for minor credit with permission of the instructor. Courses taken in study-abroad programs may be counted toward the minor, at the department's discretion. Students must declare their intention of fulfilling a minor by the end of the junior year. Only course grades of C or better may be counted toward the minor.

The Adviser System

Advisers are faculty in appropriate disciplines who are assigned to students when their major or minor is declared. Students and advisers should meet regularly. Advisers suggest a course of study, discuss and approve related courses and, for majors, identify areas of special interest that could lead to an honors project.

Study Abroad

Information on study-abroad programs in France, Germany and Spain is available at Clark's Office of Study Abroad Programs.

Courses Offered at L'Universite de Bourgogne, Dijon, France

Students who participate in Clark's study-abroad program at the Université de Bourgogne may take up to eight course units in French and other fields. Courses are offered both in the Faculté des Lettres and the Faculté de Droit and at the Centre International d'Etudes Françaises (CIEF). The following is a representative list of courses that have been offered in the past:

Faculté de Lettres et Faculté de Droit

Thème et Version - Translation Workshop French-English and English-French
Littérature française - Romantisme et Modernité
Littérature française - L'Univers balzacien
Littérature française - Le Roman au XVIIe et XVIIIe siècles
Littérature comparée - Paris entre les deux guerres
Littérature comparée - Images de la femme dans la littérature française
Histoire de L'Art médiéval
Histoire de la Bourgogne médiévale
Histoire économique et sociale
Initiation à l'histoire rurale
Institutions politiques comparées
Analyse de la vie politique
Politiques européennes

Centre Internationale d'Etudes françaises

Composition et expression écrite - Advanced written French
Grammaire
Stylistique
La littérature et ses genres
Civilisation: La France contemporaine
Histoire de l'art: La peinture française au milieu du XIXe siècle
Culture et musique
Cinéma
Théâtre contemporain
Les philosophies de l'existence en France
Histoire de la Troisième République
Français économique et commerciale

Course Listing by Fields of Specialization

Chinese

CHIN101/CHIN102 Elementary Chinese
CHIN103/CHIN104 Intermediate Chinese

Classics

CLAS120 The Epic Journey
GRK101/GRK102 Introductory Greek
LAT101/LAT102 Introductory Latin

French

CMLT112 Fairy Tales of the World
CMLT130 The National Imagination
FREN101/FREN102 Elementary French
FREN103 Elementary French: Intensive
FREN105 Intermediate French I
FREN106 Intermediate French II
FREN108 The Theater of Revolt in Modern France
FREN120 Ways of Writing, Ways of Speaking
FREN127 Media Workshop in French
FREN131 Readings in French Literature
FREN136 Studies in the Evolution of French Culture
FREN137 Studies in Contemporary French Culture
FREN145 Translation Workshop
FREN160 French Culture Seen Through Film: Jean Renoir
FREN165 French Play Production
FREN170 The Comic Tradition
FREN211 Coming of Age in the French Novel
FREN215 20th-Century French and Francophone Women Writers
FREN240 Paris in Arts and Literature
FREN241 Mysteries of the City
FREN249 The French-Speaking World
FREN256 Lessons Learned: Education in the 20th-Centrury Novel
FREN267 French Cinema: The New Wave
FREN270 The Modern French Theater
FREN297 Advanced Topics
SCRN263 History of French Cinema

German

CMLT130 The National Imagination
GERM101/GERM102 Introductory German
GERM103 Immediate German I
GERM104 Intermediate German II
GERM131 Spoken and Written German
GERM140 Modern German Prose
GERM156 The Modern German Short Story
GERM206 Special Topics in German

German Literature
Courses conducted in English

GERM188 The Culture of the Weimer Republic in Literature, Film and the Arts
GERM297 Sec. 7 Advanced Topics Tutorial in German Literature

Hebrew

HEBR101 Elementary Hebrew I
HEBR102 Elementary Hebrew II
HEBR103 Intermediate Hebrew
HEBR104 Intermediate-Advanced Hebrew
HEBR105 Advanced Hebrew
HEBR106 Special Topics in Hebrew
HEBR297 Sec. 6 Special Topics in Hebrew

Japanese

JAPN101/JAPN102 Elementary Japanese
JAPN103/JAPN104 Intermediate Japanese
JAPN105/JAPN106 Advanced Japanese
JAPN180 Japanese Culture and Literature in Translation
JAPN190 Japanese Women Writers

Spanish

The Spanish program is based on a three-year rotation. Advanced courses listed as offered periodically are generally available at least once every three years.

CMLT130 The National Imagination
SPAN101/SPAN102 Elementary Spanish
SPAN103 Elementary Spanish: Intensive
SPAN105 Intermediate Spanish
SPAN106 Intermediate Spanish II
SPAN117 Field Work in the Latino Community
SPAN127 Practice in Oral and Written Spanish
SPAN131 Readings in Hispanic Literature
SPAN133 Studies in Hispanic Culture

Studies in Culture

SPAN134 Latino Literature and Media
SPAN140 Spanish Dramatic Expression: Play Production
SPAN141 Spanish Translation Workshop
SPAN236 Women in Hispanic Literature
SPAN237 Advanced Oral and Written Spanish

SPAN238 Hispanic Literature of Political Commitment
SPAN239 Hispanic Caribbean Fiction
SPAN241 Modern Spanish Narrative
SPAN242 The Latin-American Novel
SPAN243 Latin-American Essay and Thought
SPAN245 Hispanic-American Short Story
SPAN246 Studies in Spanish Cinema
SPAN248 Studies in Latin-American Cinema
SPAN249 Studies in Hispanic Cinemas
SPAN259 Introduction to Golden Age
SPAN260 The Age of Cervantes
SPAN265 Latin-American Poetry
SPAN297 Advanced Topics

Courses

CHIN101/CHIN102 ELEMENTARY CHINESE/LECTURE, DISCUSSION

Introduces the Chinese language (standard Mandarin) for students with no background in Chinese. Focus is on all four language skills—speaking, listening, reading and writing—including the writing of Chinese characters. No credit is given for CHIN101 without successful completion of CHIN102. Ms. Li/Offered every year

CHIN103/CHIN104 INTERMEDIATE CHINESE/LECTURE, DISCUSSION

Covers the basic grammatical structures employed in modern vernacular Chinese and sufficient vocabulary and cultural background to engage comfortably in the most common types of social interaction in today's China and Taiwan. By the end of CHIN104, students will possess the necessary tools to read essays and articles on current social issues, view programs and films in Mandarin, and discuss the content, in both written and oral form. Prerequisite: CHIN102 or permission. (Completion of CHIN103 is a prerequisite for participation in Clark's study-abroad program in Beijing.) Staff/Offered every year

FREN101/FREN102 ELEMENTARY FRENCH/LECTURE, DISCUSSION

For students with no background in French or no more than one year of high-school French. Students work on all four language skills—listening, speaking, reading, writing—to develop an active knowledge of French. Students participate in weekly conversation groups with a French teaching assistant and work individually in the language lab. No credit is given for FREN101 without successful completion of FREN102. Ms. Spingler/Offered every year

FREN103 ELEMENTARY FRENCH: INTENSIVE/LECTURE, DISCUSSION

Entry-level course for students with no more than two years of high-school French or the equivalent but who are not yet ready for intermediate-level work. Emphasizes active communication through speaking and writing. There are weekly discussion groups with a French teaching assistant and individual laboratory work. Ms. Spingler/Offered every semester

FREN105 INTERMEDIATE FRENCH I/LECTURE, DISCUSSION

Consolidates basic skills for students who have completed FREN102 or the equivalent. Emphasizes communicative proficiency: the development of oral and written skills, self-expression and cultural insight. There are weekly conversation groups with a French teaching assistant. Prerequisite: FREN102, 103 or equivalent, or permission. Staff/Offered every semester

FREN106 INTERMEDIATE FRENCH II/LECTURE, DISCUSSION

Bridges basic skills courses and advanced courses in language, literature and culture. Emphasizes literary and cultural texts. Develops ability to articulate ideas and to participate in meaningful discussions in French. Grammar review is based on specific needs of the group as revealed by class work and compositions. There are weekly conversation groups with a native French speaker. Prerequisite: FREN105 or equivalent determined by placement exam. Staff/Offered every semester

FREN108 THE THEATER OF REVOLT IN MODERN FRANCE/FIRST-YEAR SEMINAR

This seminar studies the various avant-garde and experimental movements in French

Theater from 1890 to 1970 with particular focus upon the relationship between these movements and the artistic, cultural and political life of the early- and mid-20th century. The term revolt refers both to an aesthetic and an ideological phenomenon. We examine how a number of playwrights sought to re-invent theatrical form in order to challenge conventional modes of representing the world. Movements studied include Cubismü Surrealism, Existentialism and the Theater of the Absurd. We will also view some avant-garde films by Luis Buñuel and Jean Cocteau. Playwrights studied may include Alfred Jarry, Guillaume Apollinaire, Jean Cocteau, Jean-Paul Sartre, Albert Camus, Roger Vitrac, Boris Vian and Eugène Ionesco. Mr. Spingler/Offered periodically

FREN112 FAIRY TALES OF THE WORLD/LECTURE, DISCUSSION/FIRST-YEAR SEMINAR

Fairy tales are among the oldest and simplest forms of literature. They communicate archetypal patterns of human experiences and societal behavior; they reflect human wisdom of all ages derived from all cultures; and their moral teaching is universal and universally applicable. This course will apply a variety of critical-analysis methods to a selection of fairy tales from different countries, with an emphasis on the Brothers Grimm and Perrault. Taught in English. Ms. Gale/Offered periodically

FREN120 WAYS OF WRITING, WAYS OF SPEAKING

This third-year level course increases communicative competence in writing and speaking French. Models taken from French and Francophone texts are used as a basis for critical expression. Students improve verbal skills through class discussion, conversation groups and an oral presentation. Prerequisite: FREN106 or equivalent determined by placement exam. Staff/Offered every semester

FREN127 MEDIA WORKSHOP IN FRENCH

Intensive practice in spoken and written French through the study of print and visual news media. Based on their own exploration of current news in Francophone newspapers and television, students will prepare their own newsletters or television broadcasts. In-class activity involves the preparation, rehearsal and delivery of radio or television news items, and informal conversational "editorial board" meetings where students discuss the merits and interest of particular stories offered by their classmates and decide which items should be developed for inclusion in a particular newspaper issue or broadcast. Students will be expected to research current news in such papers as Le Monde and Liberation (available on the Web) and such newscasts as "le Journal de France 2" (available at Clark through SCOLA). Given in French. Mr. Spingler/Offered every year

FREN131 READINGS IN FRENCH LITERATURE/LECTURE, DISCUSSION

Introduces analysis and understanding of French literary texts and their visions of the world and of the self. Focuses on literary structures and conventions that form the basis of different genres through history. Readings include a wide range of complete texts in fiction, theater and poetry. Prerequisite: FREN120 or permission. Staff/Offered every year

FREN136 STUDIES IN THE EVOLUTION OF FRENCH CULTURE/LECTURE, DISCUSSION

Traditional French values, myths and social institutions in their relationship to changing cultural and social realities. We study Louis XIV's Gardens of Versailles and Napoleon III's redesigning of Paris as cultural texts that represent dominant political and social ideologies. Prerequisite: FREN120 or permission. Mr. Spingler/Offered every other year

FREN137 STUDIES IN CONTEMPORARY FRENCH CULTURE

Questions of cultural identity and cultural differences, with particular attention to France and foreigners, Franco-American (dis)connections and issues of immigration. Prerequisite: FREN120 or permission. Staff/Offered every other year

FREN140 EXPLORING THE FRANCOPHONE WORLD

An interdisciplinary analysis of the Francophone world through literature, social writing and film. Begins with an overview of French-speaking countries and regions in Asia, sub-Saharan Africa, Meghreb, Canada and the Caribbean. The focus continues on West Africa, the Caribbean and Maghreb. Conducted in French. Ms. Ferly/Offered every year

FREN145 TRANSLATION WORKSHOP/LECTURE, DISCUSSION

Students work on various texts (advertising, journalism, theater, film scripts and fiction) exploring theory, techniques and problems of translation. Emphasizes translation from French into English and stresses lexical and syntactic aspects of comparative style. Students become acquainted with the variety of texts an American professional translator might expect to work on, including film subtitling. Prerequisite: FREN120 or above or permission. Mr. Spingler/Offered periodically

FREN160 FRENCH CULTURE SEEN THROUGH FILM: JEAN RENOIR/LECTURE DISCUSSION

Analyzes cinematic aesthetic and narrative strategies of the films of Jean Renoir, a leading figure in French cinema. Traces development of his art and focuses particularly on the way two works, "The Grand Illusion" and "The Rules of the Game," explore the historical problem of a continuing presence of pre-Revolution values and myths within 20th-century French republican culture. Taught in English and French sections. Prerequisite for students receiving French credit: one course above 130 or permission. Mr. Spingler/Offered periodically

FREN165 FRENCH DRAMATIC EXPRESSION: PLAY PRODUCTION/LECTURE, DISCUSSION

A workshop course using scene study to provide direct experience of the theatrical synthesis within which play, actor and spectator operate. Emphasizes vocal delivery through intensive work on diction, phrasing, rhythm and gesture. Explores various approaches to the play's staging. Typically one playwright is studied and topics of theatrical practice are combined with theoretical issues concerning the social background and artistic conventions of the playwright's period. Playwrights studied may be: Molière, Marivaux, Ionesco, Beckett. Conducted in French. Prerequisite: one French course above 130 or permission. Mr. Spingler/Offered every other year

FREN170 THE COMIC SPIRIT IN FRENCH THEATER/LECTURE, DISCUSSION

Traces the tradition of self-referential theater in France and explores the techniques of the play-within-the-play. The course also examines how playwrights parody and subvert the dominant theatrical conventions and styles of their time, ranging from 17th-century comedy through contemporary-absurdist and avant-garde theater. Playwrights studied include Molière, Marivaux, Musset, Feydeau, Anouilh, Ionesco, Genet and Beckett. Mr. Spingler/Offered periodically

FREN211 COMING OF AGE IN THE FRENCH NOVEL/LECTURE, DISCUSSION

A close look at youth and the construction of adult identity in the French novel of the 19th and 20th centuries. Discussion of instruction vs. education, family structures, friendship, love relationships and sexuality, gender roles and society, and the transformation of narrative forms. Authors may include Balzac, Sand, Zola, Rachilde, Colette, Gide and Duras. Taught in French. Prerequisite: FREN131, 136 or above, or permission. Ms. Gale/Offered periodically

FREN240 PARIS IN ARTS AND LITERATURE/ SEMINAR

Investigates changing urban consciousness of 19th-century France by examining problems of representing the city through urban planning (architecture and urban landscape), and through visual representation of Paris by two painters, Caillebotte and Manet, and the literary representation of Paris by two poets, Baudelaire and Rimbaud. Given in French. Prerequisite: two French courses above 130 or permission. Mr. Spingler/Offered periodically

FREN241 MYSTERIES OF THE CITY/LECTURE, DISCUSSION

Study 19th-century France origins of the myth of the city as a place of mystery, enchantment and danger. Starting with Eugène Sue's "Mysteries of Paris," the course traces narrative and poetic representations of the city as instances of the melodramatic imagination. Explore the roots of the modern roman and film noir in such texts as Zola's "Thérèse Raquinè." Authors studied include Eugene Sue, Victor Hugo; Honoré de Balzac, Charles Baudelaire and Emile Zola and some 20th-century cinematic representations of 19th-century Paris. Conducted in French. This seminar may be taken by senior majors to fulfill their capstone requirement. Mr. Spingler/Offered periodically.

FREN249/IDCE321 THE FRENCH-SPEAKING WORLD

An interdisciplinary analysis of questions of cultural identity as they have been elaborated by Francophone writers during the colonial and particularly the post-Colonial period, with special emphasis on French-speaking Africa, the Antilles and the Maghreb. Through literature, social texts and film we explore such issues as tradition and modernity, conflicts between (and within) indigenous and French social codes; the Algerian war and its legacy; women and Islam. Prerequisite: two French courses above 130 or permission. Staff/Offered periodically

FREN256 LESSONS LEARNED: EDUCATION IN THE 20TH-CENTURY NOVEL/LECTURE, DISCUSSION

An exploration of literary portrayals of youth and the passage to adulthood with a focus on the role of the school. Topics include the adolescent body, gendered identity, social structures and narrative strategies. Authors studied may include Colette, Alain-Founier, Gide, Sagan, Ernaux and Duras. Taught in French. Prerequisite: 131 and another course at the 130 level in French or permission. Ms. Gale/ Offered periodically

FREN267 FRENCH CINEMA: THE NEW WAVE/ LECTURE, DISCUSSION

Focuses primarily on the films of Jean-Luc Godard, which profoundly changed the look of contemporary cinema including American films. Also includes films by François Truffaut, Louis Malle, and Claude Chabrol, but primarily explores how Godard's radical transformations of film form reflected the crisis in cultural and political consciousness in France in the 1960s. Taught in English. Prerequisite for French credit: two courses above 130 or permission. Mr. Spingler/Offered periodically

FREN270 THE MODERN FRENCH THEATER: EXPERIMENTS OF THE AVANT-GARDE/LECTURE, DISCUSSION

Studies the origins and developments of the avant-garde theater of France with particular emphasis on the staging of the plays. Focuses on the theater since 1950, especially works by Ionesco, Beckett, Genet and Arrabal. Explores affinities between these playwrights and Dada and Surrealist movements and studies three precursors: Jarry, Ghelderode and Artaud. Conducted in French. Prerequisite: two courses above 130 or permission. Mr. Spingler/Offered periodically

FREN297 ADVANCED TOPICS/SEMINAR

A required capstone course for senior majors. Open to advanced students with permission of instructor. Modified versions of courses above the 200 level are offered periodically for 297 credit. Ms. Gale, Mr. Spingler/Offered every year

GERM101/GERM102 INTRODUCTORY GERMAN/ LECTURE, DISCUSSION

Imparts an active command of German. Combines grammar, oral practice and readings in literary and expository prose. There are weekly conversation groups with a native German speaker and individual laboratory work. No credit is given for GERM101 without successful completion of GERM102.
Mr. Tanaka/Offered every year

GERM103 INTERMEDIATE GERMAN I/LECTURE, DISCUSSION

Consolidates basic skills for students who have completed GERM102 or the equivalent. Reviews grammar, reading and discussion of selections from newspapers and magazines. Develops skills in oral and written expression. There are weekly conversation groups with a native German speaker and individual laboratory work. Prerequisite: GERM102 or equivalent. Mr. Tanaka/Offered every year

GERM104 INTERMEDIATE GERMAN II/LECTURE, DISCUSSION

Bridges basic skills courses and advanced courses in language, literature and culture. Reviews grammar and studies literary works on themes of contemporary German culture. Develops the ability to articulate ideas and to participate in discussions in German. There are weekly conversation groups with a native German speaker as well as individual laboratory work. Prerequisite: GERM103 or equivalent. Mr. Tanaka/Offered every year

GERM131 SPOKEN AND WRITTEN GERMAN/ LECTURE, DISCUSSION

This third-year course strengthens speech habits, increases vocabulary and improves written expression. Literary and journalistic texts serve as a basis for discussion of contemporary issues. Weekly written assignments. Prerequisite: GERM104 or equivalent. Mr. Tanaka/Offered every year

GERM140 MODERN GERMAN PROSE/LECTURE, DISCUSSION

Studies prose by Kafka, Hesse, Mann, Böll, Borchert and Walser; includes discussions, oral and short written reports in German. Prerequisite: GERM131 or equivalent. Staff/ Offered periodically

GERM150 THE NEW GERMAN CINEMA/LECTURE, DISCUSSION

Studies films by German directors Fassbinder, Herzog, Kluge, Schlondorff, Sanders-Brahms, Von Trotta and Wenders. Examines the cinematique technique and world view unique to each director. Also examines German-American cultural cross currents and social issues. Students study the films, read critical writings, write film critiques and produce a paper on the New German Cinema. No prerequisites. Mr. Schatzberg/Offered periodically

GERM156 THE MODERN GERMAN SHORT STORY/LECTURE, DISCUSSION

After years of isolation and stagnation during and after the Nazi period, young writers, anxious to establish new values and connect with international literary developments, discovered the English and American short story and adapted it to historical, social and cultural conditions in Germany. The short story became the most important literary form. This course reviews leading modern German writers, emphasizing thematic variety and structural complexities. Prerequisite: GERM131 or equivalent. Staff/Offered periodically

GERM188 THE CULTURE OF THE WEIMAR REPUBLIC IN LITERATURE, FILM AND THE ARTS/LECTURE, DISCUSSION

Explores modernism and modernity in German literature and art during the Weimar Republic (1918-1933). Studies novels, plays, films and paintings within the framework of cultural and political developments in Germany from the turn of the century to the rise of National Socialism. Mr. Schatzberg/ Offered every other year. (Conducted in English)

GERM297 ADVANCED TOPICS TUTORIAL IN GERMAN LITERATURE/LECTURE, DISCUSSION

Determined by the needs and interests of individual students. Ordinarily taken by senior German majors as a capstone experience. Other advanced students of German language and literature may be invited to participate in the tutorials as space permits. Staff/Offered every year

GRK101/GRK102 INTRODUCTORY GREEK I, II/LECTURE, DISCUSSION

Introduces the language of classical Greece. Covers the grammar and syntax of the Ancient Greek. Students read Ancient Greek texts including philosophical works such as Plato's "Apology of Socrates and Crito," and selections from Homer, Herodotus and the New

Testament. No credit is given for GRK101 without successful completion of GRK102. Mr. Burke/Offered every other year

GRK299 SUPERVISED READING IN PHILOSOPHICAL GREEK

A study of selected philosophical texts in Greek. Mr. Pakaluk/Offered every semester

HEBR101 ELEMENTARY HEBREW I/LECTURE, DISCUSSION

Modern conversational Hebrew. Emphasizes speaking, reading, writing and listening skills. Acquisition of vocabulary and basic grammar. Two class meetings per week, one hour of mandatory drill sessions led by a teaching assistant and individual work in the language laboratory. No credit is given for HEBR101 until successful completion of HEBR102. Ms. Barone/Offered every year

HEBR102 ELEMENTARY HEBREW II/LECTURE

This course is a continuation of HEBR101. Offered also for students who placed at that level during placements exams.

HEBR103 INTERMEDIATE HEBREW/LECTURE, DISCUSSION

Modern conversational Hebrew. Emphasis on speaking, reading, writing and listening skills. Enrichment and reinforcement of verbal expressions and grammatical structures. Two class meetings per week, one hour of mandatory drill sessions led by a teaching assistant and individual work in the language laboratory. HEBR102 or the equivalent required. Ms. Barone/Offered every year

HEBR104 INTERMEDIATE-ADVANCED HEBREW/ LECTURE, DISCUSSION

Surveys significant Hebrew texts, including literature and newspapers, focusing on the Holocaust through literature. Enrichment of verbal and written expression and grammatical structures. Two class meetings per week, one hour of drill sessions, and individual work in the language laboratory. HEBR103 or equivalent required. Ms. Barone/Offered every year.

HEBR105 ADVANCED HEBREW/LECTURE, DISCUSSION

For students who have studied the basics of Hebrew grammar. Reinforces conversational and grammatical skills through discussion, composition and reading Hebrew literature and newspapers. Literary readings focus on Israel or the development of the language. Prerequisite: HEBR104 or the equivalent. Ms. Barone/ Offered every year

HEBR106 SPECIAL TOPICS IN HEBREW/ DISCUSSION

Presents modern Hebrew literature predominantly in the original language. Through poetry, short fiction and current journalism, the course examines major issues in Israeli culture: the early immigrant experience, the Holocaust and the Arab-Israeli conflict. Students enrich their verbal and written expression and study increasingly complex grammatical structures. Ms. Barone/Offered every year

HEBR299.6 SPECIAL TOPICS IN HEBREW/ DISCUSSION

Close reading and discussions of a novel in Hebrew by a famous Israeli writer. A paper is required based on the topic the book raises. The meetings will be individually with each student. Ms. Barone/Offered periodically

JAPN101/JAPN102 ELEMENTARY JAPANESE/ LECTURE, DISCUSSION

Introduces the Japanese language, emphasizing speaking, listening, reading and writing skills. No credit is given for JAPN101 without successful completion of JAPN102. Ms. Valentine/ Offered every year

JAPN103/JAPN104 INTERMEDIATE JAPANESE/ LECTURE, DISCUSSION

A continuation of first-year Japanese, emphasizing learning kanji, mastering more complex grammatical forms, and increasing fluency. Prerequisite: JAPN102 or permission. Staff/Offered every year

JAPN105/JAPN106 ADVANCED JAPANESE/ LECTURE, DISCUSSION

Primary emphasis is on building critical vocabulary and understanding Japanese behavior patterns. Prerequisite: permission. Staff/Offered periodically

JAPN180 JAPANESE CULTURE AND LITERATURE IN TRANSLATION/LECTURE, DISCUSSION

The course is designed to offer students a foundation for understanding Japanese culture and its values, which are critically different from those of the West. It explores in historical context the ways in which Japanese society has been formed and investigates how it has sustained its values in the modern world. Taught in English. Ms. Valentine/Offered periodically

JAPN190 JAPANESE WOMEN WRITERS

Explores Japanese poetry and prose in translation, from the literary tradition of 10th—11th-century Japan, through the reawakening of women writers in the early modern period to contemporary writers popular both in Japan and abroad. Emphasis is on the cultural context of author and audience and the changing role of women in Japanese society.
Ms. Valentine/Offered periodically

LAT101/LAT102 INTRODUCTORY LATIN

Introduction to the culture language of Catullus, Ovid, Vergil, Horace, et al., through reading, oral and written exercises in grammar and syntax, historical studies with Roman coins. Students will work in small groups and on a play performed on or around the Ides of March when they will also experience Roman cuisine. Weekly lab required. Ms. Sun/Offered every year.

LAT103 INTERMEDIATE LATIN

Vergil's "Aeneid" reviews the basics of Latin grammar through the close reading of selected passages from Vergil's "Aeneid." Investigation of relevant archeological and artistic material will supplement the Latin text in building a comprehensive picture of the artistic and political culture of Augustan Rome. Mr. Burke/ Offered every other year

LAT299 SUPERVISED READING IN PHILOSOPHICAL LATIN

A close reading of selected philosophical texts in Latin. Mr. Pakaluk/Offered every semester

LAT299.1 DIRECTED READING IN LATIN LITERATURE

A reading of selected literary texts. Ms. Sun/ Offered every semester

SPAN101/SPAN102 ELEMENTARY SPANISH I, II/DISCUSSION

For students with no more than one year of the language, this course develops basic skills in speaking, reading and writing Spanish. Meets for three hours per week; regular class assignments are supplemented by individual work in the Language Arts Resource Center (LARC). No credit is given for SPAN101 without successful completion of SPAN102. Ms. Acosta Cruz, Ms. Atienza, Ms. Montross, Staff/Offered every year

SPAN103 ELEMENTARY SPANISH: INTENSIVE/ LECTURE, DISCUSSION

An accelerated elementary course, intended for students who have had no more than two years of high-school Spanish. Three hours per week, plus individual work in the Language Arts Resource Center. Staff/Offered every year

SPAN105 INTERMEDIATE SPANISH I/LECTURE, DISCUSSION

An intermediate course intended for students with more than three years of high-school Spanish. Integrates the essential aspects of Spanish in a structured manner, while at the same time reviewing grammar and enhancing skills in reading, writing and conversation. Also develops awareness and appreciation of Hispanic cultures. Prerequisite: successful completion of SPAN101 and 102, 103 or the equivalent. Discussion session required. Ms. Acosta Cruz, Ms. D'Lugo, Staff/Offered every semester.

SPAN106 INTERMEDIATE SPANISH II/LECTURE, DISCUSSION

Normally taken after SPAN105, SPAN106 further strengthens skills in the language through grammar reviews, readings on Hispanic themes and class discussions. Emphasis is on activities in reading, writing, speaking and conversational understanding as a preparation for more advanced work. Prerequisite: successful completion of 105 or the equivalent. Discussion session required. Ms. Acosta Cruz, Ms. Atienza, Ms. Montross, Staff/Offered every semester

SPAN117 FIELD WORK IN THE LATINO COMMUNITY

Offers an opportunity to work in an agency or project serving the Latino community in Worcester (the bilingual school program, Casa de la Comunidad, Worcester Legal Services, etc.). Advisers supervise the student work. Students keep a journal on the experience in which they examine language, culture and related problems of the bilingual community. Students read works of Latino literature and write short papers in Spanish. Weekly meetings with instructor. Prerequisites: proficiency in Spanish; successful completion of course work in the field or fields related to the specific project area; permission of instructor. Offered for credit, but is not graded. Ms. Montross/Offered every semester.

SPAN127 PRACTICE IN ORAL AND WRITTEN SPANISH/LECTURE, DISCUSSION

A transitional course between intermediate Spanish and the upper-level offerings. Develops fluency and sophistication in spoken and written Spanish. Emphasizes practice in conversation, composition and selected grammar review. Prerequisite: SPAN106 or by permission. Ms. D'Lugo, Mr. Ferguson, Staff/Offered every semester

SPAN131 READINGS IN HISPANIC LITERATURES/LECTURE, DISCUSSION

Introduces modern Hispanic narrative, lyric, and dramatic literature. Studies works by authors of Spain and Latin America and their literary, social, cultural and political context. Readings illuminate such themes as the idea of cultural continuity and modernity, notions of norm and deviance in the Hispanic community and national identity. Since course content is variable, students may request permission to take the class twice. Conducted in Spanish. Prerequisite: SPAN127. Required for majors. Ms. Atienza, Ms. Acosta Cruz, Ms. D'Lugo, Mr. D'Lugo, Mr. Ferguson/Offered every semester

SPAN133 STUDIES IN HISPANIC CULTURE/LECTURE, DISCUSSION

A third-year course introducing students to the diversity of Hispanic culture through literature, history, the arts, Internet, and visual media. Focuses on one or two of the following national cultures: Chile, Cuba, Mexico, Puerto Rico, Spain, Argentina. Conducted in Spanish. Prerequisite: SPAN127. Required for majors. Ms. Acosta Cruz, Ms. Atienza, Ms. D'Lugo, Mr. D'Lugo, Mr. Ferguson/Offered periodically

SPAN134 LATINO LITERATURE AND MEDIA

Explores the variety of expressions of Latino identity as a hybrid formation within U.S. culture of the last half century. Unlike traditional Spanish-language literature, which is historically formed and rooted within a Hispanic national community, Latino culture generally functions between and around cultures. It is a culture of migration, assimilation, resistance to the melting pot, as well as a unique expression of a new ethnicity in formation. It expresses, among other themes, the identity of Puerto Rican-Americans, Cuban-Americans and Mexican-Americans and that of other Spanish speakers living in the United States. The objective of the course is to explore the variety of efforts to define Latino culture in the United States through literary and cinematic practices as well as through political and cultural writings. Conducted in English. No required prerequisites. Not offered to first-year students. Spanish credit may be available. Ms. Acosta Cruz, Mr. D'Lugo/Offered periodically

SPAN140 SPANISH DRAMATIC EXPRESSION: PLAY PRODUCTION/LECTURE, DISCUSSION

Acquaints students with the rhythms, intonations and gestures typical of contemporary spoken Spanish. Through study and presentation of two or more contemporary dramatic works, students gain practical experience in linguistic and cultural skills. Although some consideration is given to the texts as literature, the course is primarily a workshop in advanced oral Spanish. Prerequisite: SPAN127. Ms. Atienza/Offered periodically

SPAN141 SPANISH TRANSLATION WORKSHOP/ LECTURE, DISCUSSION

Introduces students to the basic issues involved in translation including considerations of cultural difference, language equivalencies, translation loss and ways to approach the source text. Among the texts translated are fragments of prose fiction, songs, magazine ads, product instructions, editorials, and movie dialogue (subtitles). Prerequisite: SPAN131 or permission. Ms. D'Lugo/Offered periodically

SPAN236 WOMEN IN HISPANIC LITERATURE/ LECTURE, DISCUSSION

Topics include alienation with women's "culture," identity, family structure, violence against women, and women in the national imagination. Readings are from the Spanish and Latin-American tradition. Conducted in Spanish or English. By permission only. Ms. Acosta Cruz, Ms. Atienza, Staff/Offered periodically

SPAN237 ADVANCED ORAL AND WRITTEN SPANISH/LECTURE, DISCUSSION

An advanced language course offering a sophisticated review of grammar with exercises in composition, vocabulary, pronunciation and intonation. Conducted in Spanish. By permission only. Required for majors. Ms. Acosta Cruz/Offered periodically

SPAN238 HISPANIC LITERATURE OF POLITICAL COMMITMENT/LECTURE, DISCUSSION

Studies the creative writer's position amidst 20th-century revolutionary change. Writers discussed include Pablo Neruda, César Vallejo, Ernesto Cardenal, Francisco Ayala and Miguel Hernández; Cuban writers and poets in their sometimes ambiguous relationship to their country's revolution; the writers of the Chicano movement and the dream of Aztlán; and Puerto Rican authors, both on the mainland and on their native island. Conducted in Spanish. Prerequisite: SPAN131. Mr. Ferguson/ Offered periodically

SPAN239 HISPANIC CARIBBEAN FICTION/ LECTURE, DISCUSSION

Examines literature, arts and media in Spanish language countries in the Caribbean Basin. Topics include: Afro-Antillean culture movements, women's literature, hybrid and national identity. Conducted in Spanish. By permission only. Ms. Acosta Cruz/Offered periodically

SPAN242 THE LATIN-AMERICAN NOVEL/ LECTURE, DISCUSSION

Readings and discussions of selected works by contemporary Latin-American novelists, emphasizing technical innovations in relation to social and political thematics. Critical, historical and cultural material provides a context for the creative surge reflected in 20th-century narrative practice. Authors include García Márquez, Cortázar, Puig, Fuentes, Bombal and Mastretta. Prerequisite: SPAN131. Ms. D'Lugo/ Offered periodically

SPAN243 LATIN-AMERICAN ESSAY AND THOUGHT/LECTURE, DISCUSSION

History and development of Latin-American culture through the essay genre. Looks at essays that explore issues of national identity, politics, ethnic minorities and women's status, and issues of hybridity and globalization. Conducted in Spanish. Ms. Acosta Cruz, Mr. Ferguson/ Offered periodically

SPAN245 HISPANIC-AMERICAN SHORT STORY/ LECTURE, DISCUSSION

Introduces the tradition and development of short narrative in Hispanic America, from its beginnings in colonial chroniclers through the progressive refinements of theme, local color, style and narrative technique that led to fictions of the 20th-century "boom" and beyond. Readings include works by Rubén Darío, Horacio Quiroga, José Luis Borges, Carlos Fuentes, Julio Cortázar, Juan Rulfo, Rosario Ferré, Luisa Valenzuela. Conducted in Spanish. Prerequisite: SPAN131. Mr. Ferguson, Ms. D'Lugo/Offered periodically

SPAN246 STUDIES IN SPANISH CINEMA/LECTURE, DISCUSSION

Surveys principal Spanish films and filmmakers of the past 50 years in the context of political and social change in Spain. Considers formulation of cultural ideology through franquista cinema in the 1940s and rise of opposition cinema 1950-1975, operations of film censorship, rise of regional film cultures in post-Franco Spain, and auteurism and national/international audiences of Spanish cinema. Topics vary each time the course is offered. Conducted in Spanish. Offered in English on an occasional basis. Mr. D'Lugo/Offered periodically

SPAN248 STUDIES IN LATIN-AMERICAN CINEMA/ LECTURE, DISCUSSION

Surveys film cultures, directors and works in Latin America, emphasizing developments in Argentina, Brazil, Cuba and Mexico. Examines politics of representation, cultural nationalism in Latin-American cinema, issues of authorship and alternative film practices in Third World cinema. Conducted in Spanish. Offered in English on an occasional basis. Mr. D'Lugo/ Offered periodically

SPAN249 STUDIES IN HISPANIC CINEMA/LECTURE

Provides students who have already completed Spanish 246 or 248 the opportunity to further explore development of film and film culture in Spain or Spanish America. Topics vary each time the course is offered. Sample topics from Spanish cinema include: Spanish and foreign constructions of national identity; narratives of female empowerment; selected film auteurs (Almodóvar, Borau, Buñuel, Saura). Sample topics from Latin-American cinemas include: race, gender and ethnicity in various Latin-American cultures; cinema as political intervention; selected film auteurs (Tomás G. Alea in Cuba, Emilio "Indio" Fernández in Mexico, Fernando Solanas in Argentina). Mr. D'Lugo/ Offered periodically

SPAN259 INTRODUCTION TO GOLDEN AGE THEATER/LECTURE, DISCUSSION

An introduction to Spain's greatest playwrights-Lope de Vega, Tirso de Molina, Ruiz de Alarcón, Calderón de la Barca and sor Juana Inés de la Cruz. Conducted in Spanish. Prerequisite: SPAN131. Ms. Atienza, Mr. Ferguson/Offered periodically

SPAN260 THE AGE OF CERVANTES/LECTURE, DISCUSSION

Introduces Spanish literature and society in the Golden Age, from the era of Catholic monarchs to the death of Cervantes and beyond. Examines works in a variety of genres, tracing development of Spanish imagination from the flowering of Renaissance humanism through the Counter-Reformation and the birth of the baroque, a profile of brilliance and despair that characterizes Spain in these imperial centuries. Conducted in Spanish. Prerequisite: SPAN131. Ms. Atienza, Mr. Ferguson/Offered periodically

SPAN265 LATIN-AMERICAN POETRY/LECTURE, DISCUSSION

Beginning with colonial times and the poems of Sor Juana, students will read a generous selection of poems from all of Latin America. The course will emphasize the extraordinary flowering of poetic activity in the 20th century. Conducted in Spanish. Prerequisite: SPAN131. Mr. Ferguson/Offered periodically.

SPAN296 ADVANCED TOPICS/SEMINAR

Close readings and discussion of representative works by major Hispanic writers. Research project required. A required capstone course for senior majors. Variable topics for 2004-2006. Conducted in Spanish. Ms. D'Lugo, Mr. D'Lugo, Ms. Acosta Cruz, Ms. Atienza, Mr. Ferguson/ Offered every year

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in Foreign Languages and Literatures. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See Ancient Civilization

CLAS120 The Epic Journey

See Comparative Literature

CMLT130 The National Imagination

See Screen Studies

SCRN263 History of French Cinema/ Lecture, Discussion

SCHOOL OF GEOGRAPHY

Clark's School of Geography was established in 1921 and is consistently ranked among the top geography programs in North America, noted by "Ruggs Recommendations on the Colleges," as the best undergraduate geography major in America. The undergraduate program provides an academic environment characterized by small class sizes, close interactions with faculty and opportunities for independent study and research.

The School offers two undergraduate majors —Geography and Global Environmental Studies—and minors in Geography and Global Environmental Studies. The School also offers an accelerated master's degree program leading to an M.A. in Geographic Information Science. The School also has a joint M.A. in Geographic Information Sciences for Development and Environment with IDCE, as well as a traditional doctoral program.

GEOGRAPHY

Program Faculty

B. L. Turner, Ph.D., *Director*
David Angel, Ph.D.
Yuko Aoyama, Ph.D.
J. Ronald Eastman, Ph.D.
Jody Emel, Ph.D.
Susan Hanson, Ph.D.
Stanley Herwitz, Ph.D.
Douglas Johnson, Ph.D.
Roger Kasperson, Ph.D.
Laurence A. Lewis, Ph.D.
Deborah Martin, Ph.D.
Richard Peet, Ph.D.
Colin Polsky, Ph.D.
R. Gil Pontius, Ph.D.
Samuel Ratick, Ph.D.
Dianne Rocheleau, Ph.D.
John Rogan, Ph.D.
Henry Steward, Ph.D.

Staff

Beverly Presley, A.M.L.S.

Emeriti

Gerald J. Karaska, Ph.D.
Duane S. Knos, Ph.D.
William A. Koelsch, Ph.D.
Robert Cameron Mitchell, Ph.D.

Program Overview

Geography's integrative perspective, which focuses on understanding the relationships between people and the environment, provides an excellent basis for understanding today's complex world. Students work on problems such as how to ensure a clean, safe water supply; how to increase the livability of cities; how to assess the causes and consequences of urban sprawl; how to measure land use changes resulting from global climate change; and how to increase food security around the globe.

Special facilities available to students include the Jeanne X. Kasperson Research Library at the Marsh Institute, Burnham Map and Aerial Photograph Library, Clark Labs for Cartographic Technologies and Geographic Analysis, an earth-science teaching and research laboratory, a computer lab, and the research station at Tower Hill Botanic Garden.

For the latest programmatic information, please see geography's Web site (www.clarku.edu/ departments/geography).

Major Requirements

Students majoring in geography take a minimum of 10 geography courses in accordance with the following guidelines:

1. Four Core Courses

Core courses emphasize core geographic concepts and ways of creating knowledge; courses in the core are designed to help build frameworks for understanding the world. Students select one core course from each of the following four broad disciplinary divisions, although majors may substitute GEOG011 The World According to Geography, for one of the required core areas.

Nature and Society: Analyzes the ways that human societies have used, shaped and constructed nature; impacts of societies, economies and cultures on ecological systems.

Core courses in nature-society:
GEOG010 Environment and Culture
GEOG017 Culture, Place, and the Environment
GEOG022 Why Global Warming Matters
GEOG090 Native Americans and Natural Resources
GEOG105 Keeping of Animals: Patterns of Use and Abuse
GEOG126 Living in the Material World: The Political Geography of Resource Development
GEOG132 Before and After Columbus: Ancient Middle America and the Impact of the Conquest
GEOG136 Gender and Environment
GEOG179 Globalization, Environment and Justice
GEOG180 The Earth Transformed by Human Action
GEOG184 Landscapes of the Middle East

Globalization, Cities and Development: Examines the ways that space and location shape economic, sociopolitical and cultural life; ways that economic, sociopolitical and cultural factors shape space and location; relationships between these processes and the dynamics of urban life.

Core courses in globalization, cities and development:
GEOG016 Introduction to Economic Geography
GEOG020 Introduction to Urban Geography
GEOG107 Miracles of Asia: Economic Growth in Global Contexts
GEOG127 Political Economy of Development
GEOG152 Geography and Globalization

Earth Sciences: Looks at the effects of land-cover change on natural systems; creation of landscapes by natural processes at a variety of scales; interactions between the various components of the world ecosystem (lithosphere, atmosphere, hydrosphere, ecosphere).

Core courses in earth sciences:
GEOG014 Weather, Climate and Landscapes
GEOG075 First-Year Seminar in Land Degradation
GEOG101 Environmental Geology
GEOG102 Understanding the Weather
GEOG103 The Natural Environment of New England
GEOG114 Intermediate Geomorphology
GEOG115 Introduction to Hydrology and Water Resources: A Geographical Review
GEOG118 Environment and Disasters

Geographic Information Science: Geographic Information Science is concerned with the acquisition, analysis and communication of geographic information; principles and techniques important in cartography, remote sensing, geographic information systems and spatial analysis.

Core courses in geographic information science:
GEOG085 Introduction to the Mapping Sciences
GEOG087 Introduction to Environmental Sciences
GEOG190 Introduction to GIS

Each year, several 000- and 100-level courses are designated as core courses in each of these areas. In special cases, a 200-level course may be used to fulfill a core course requirement, subject to the approval of the student's adviser and either the undergraduate adviser or the director of the school.

2. Two Skills Courses

All geography majors take GEOG141 Research Methods (offered each year) and one additional course in a skill area appropriate to the student's area of specialization, as detailed in their learning plan (discussed below). The adviser's signature on the learning plan signifies formal approval of this elective skills course.

With the approval of the student's adviser, a comparable skills course in another department can be substituted. Students substituting a skills course from another department will need to take an additional geography course to ensure that a total of 10 geography courses are taken.

Geography skills courses include:

GEOG110 Introduction to Quantitative Methods in Geography
GEOG190 Introduction to GIS
GEOG206 GIS and Local Planning
GEOG247 Intermediate Quantitative Methods in Geography
GEOG255 Qualitative Research Methods, Skills and Applications
GEOG260 Quantitative Modeling
GEOG282 Advanced Remote Sensing
GEOG285 Spatial Database Development
GEOG293 Digital Image Processing

3. Three Specialization Courses

Each geography major takes three specialization courses, two of which must be at the 200 level and one of which may be either at the 100 or 200 level. Specialization courses are subject to approval by the student's adviser and must reflect a logical combination of courses as specified in the formal learning plan (see below). Formal approval of the elective specialization course is implied by the adviser's signature on the learning plan.

Specialization courses in geography:

Nature and Society

GEOG222 Why Global Warming Matters
GEOG224 Economy and Environment
GEOG226 Seminar: Environmental Hazards Theory, Models and Applications
GEOG228 Management of Arid Lands
GEOG232 Landscape Ecology
GEOG234 The Geography of Fire
GEOG237 Feminism, Nature and Culture
GEOG239 Country and Culture
GEOG250 Technology and Environmental Assessment
GEOG261 Decision Methods for Environmental Management and Policy
GEOG277 Gender, Environment and Development
GEOG280 Urban Ecology: Cities as Ecosystems
GEOG281 Tropical Ecology
GEOG284 Environment and Development in the Middle East and North Africa

Globalization, Cities and Development

GEOG254 Urban Transportation: Problems and Prospects
GEOG256 Global Economic Geographies
GEOG257 Internet Geography: Socioeconomic Impacts of Information Technologies
GEOG258 Utopian Visions, Urban Realities: Planning Cities for the 21st Century
GEOG262 Urban Economic Geography
GEOG289 Development Policy

Earth Sciences

GEOG200 Land Degradation
GEOG211 African Environments and Geographical Implications
GEOG218 Seminar in Physical Environment and Development
GEOG263 The Climate System and Global Environmental Change
GEOG271 Groundwater Hydrology and Management
GEOG290 Directed Research: NASA UAV Project

Geographic Information Sciences

GEOG206 GIS and Local Planning
GEOG217 History of Cartography
GEOG260 Quantitative Modeling
GEOG282 Advanced Remote Sensing
GEOG285 Spatial Database Development

4. A Formal Learning Plan

Each student is required to prepare a formal learning plan that establishes the logical connections among the specialization courses and the elective skills course. The learning plan is typically a single page in length, and requires signatures by the student, faculty adviser and director or undergraduate adviser. This approval process should normally be obtained before the end of the spring semester of the junior year and must be completed before senior clearance will be granted.

5. A Capstone Course

Capstone courses provide an integrative perspective within an area of specialization. Each year a series of capstone courses is offered. The chosen capstone should have a close logical connection with the student's specialization courses and is subject to the approval of the student's faculty adviser. In special circumstances, a nondesignated course may be substituted as a capstone with approval by the undergraduate adviser or the director of the school.

6. A Research Applications Course

Each geography major is required to take at least one 200-level geography course within which he or she carries out an independent research project involving research design, data collection, analysis and a reporting of results. Taken after GEOG141 Research Methods, this course can also satisfy other requirements for the major (normally the specialization requirement) and thus does not necessarily add to the total number of courses taken. The research applications course may be Directed Research (299) or a research-oriented capstone course.

To fulfill the research applications requirement the student must present his or her research project at a poster session. Typically, departmental poster sessions are organized by the School of Geography at the end of each semester, although poster presentations at other appropriate venues (Fall Fest, Academic Spree Day, professional meetings) also are encouraged.

Requirements for the Dual Major in Geography

In accordance with University guidelines, the requirements for a dual major are identical to those of the individual major.

Honors Program

The honors program in geography gives the advanced student the opportunity to conduct a major independent research project on a topic of interest to him or her. To graduate with honors a student must successfully complete a two-semester independent honors project conducted under the supervision of a faculty adviser and one additional faculty member.

Successful completion of the honors project will be recognized at commencement. Most students will produce the honors thesis during the senior year although in some circumstances students may opt to enroll in the honors program for the spring semester of the junior year and fall semester of the senior year. Geography honors is open to juniors who, by the end of the first semester of the junior year, have a minimum grade-point average of 3.25 overall and 3.5 in the geography major and who can demonstrate the appropriate research background to undertake independent geographic research.

For further information about the geography honors program and the geography undergraduate major, please contact the School of Geography's undergraduate program assistant Jennifer Brouillard at 508-793-7282 or e-mail: jbrouillard@clarku.edu and view our Web site (www.clarku.edu/departments/geography). Undergraduate brochures are available in the main office of geography and also may be mailed to prospective majors.

Geography Minor

Students wishing to minor in Geography must complete the following components of the regular program of the major (for a total of seven courses):

1. **Two core courses:** Core courses emphasize core geographic concepts and ways of creating knowledge; courses in the core are designed to help build frameworks for understanding the world. Each of the core courses must be selected from one of the following broad disciplinary divisions:

Nature-Society

Analyzes the ways that human societies have used, shaped, and constructed nature; impacts of societies, economies and cultures on ecological systems.

Globalization, Cities and Development
Examines the ways that space and location shape economic, sociopolitical, and cultural life; ways that economic, sociopolitical and cultural factors shape space and location; relationships between these processes and the dynamics of urban life.

Earth Sciences
Looks at the effects of land-cover change on natural systems; creation of landscapes by natural processes at a variety of scales; interactions between the various components of the world ecosystem (lithosphere, atmosphere, hydrosphere, ecosphere).

Geographic Information Science
Geographic Information Science is concerned with the acquisition, analysis, and communication of geographic information; principles and techniques important in cartography, remote sensing, geographic information systems and spatial analysis.

Each year, several 000- and 100-level courses are designated as core courses in each of these areas. In special cases, a 200-level course may be used to fulfill a core course requirement, subject to the approval of the student's adviser and either the undergraduate adviser or the director of the school.

2. One skills course. Each student undertaking the geography major is required to take at least one geography skills course appropriate to the student's area of specialization. This course must be approved by the student's adviser.

3. Three specialization courses. Two specialization courses must be at the 200 level and one may be at the 100 or 200 level. The faculty adviser must approve the specialization courses selected.

4. One elective geography course. The seventh course in the geography minor is an elective that can be taken at any level.

The Clark Advantage

Geography undergraduates are served by the Clark University Geography Association (CUGA), Gamma Theta Upsilon (GTU) an international geographic honors society, and a Geographical Newsletter that is printed twice a semester.

CUGA is the voice of the undergraduates with representatives on the various committees within the department. CUGA representatives are able to vote and give their ideas and opinions on various topics that concern undergraduate geography majors. They also attend field trips and periodically have group gatherings to discuss topics of interest to geography majors, such as research, internships, courses and future jobs.

GTU is an elite international honor society; initiates must have completed a minimum of three geography courses, have a B average in geography, rank in the upper 35% of their class, and have completed at least three semesters or five quarters of college course work. For more information on Gamma Theta Upsilon please see their Web site at: http://perth.uwlax.edu/GTU/.

The Geography News is a newsletter put together by the undergraduate program assistant in geography with the help of the geography majors. The newsletter typically contains information about new/current classes, new professors/staff members, student achievements, academic activities, current events at Clark, geographical news from the field and write-ups on field trips. We like to keep our students informed with the latest geographical information.

Graduate Programs

The Graduate School of Geography offers two formal programs leading to a Master of Arts degree: an accelerated Master of Arts in Geographic Information Science, and a Master of Arts in Geographic Information Sciences for Development and Environment. Please see the program Web site (www.clarku.edu/departments/idce/gis).

Accelerated M.A. in Geographic Information Science

Geographic Information Science is a subfield of geography concerned with the acquisition, storage, analysis and communication of geographic information. In addition it conducts primary research on the manner in which we acquire knowledge from spatially referenced data. Geographic information analysts have applied skills in the concepts of geodesy, cartography, remote sensing, spatial analysis and decision science, and strong working knowledge of the Global Positioning System, Geographic Information Systems and Digital Image Processing software, Dynamic Modeling and Geostatistics. They are skilled in the problems of spatial georeferencing, error modeling and the propagation of uncertainty, the modeling of spatial processes and procedures for multicriteria and multiobjective decision making. In addition, they have the graphic communication and cartographic skills required for the production of effective map displays and geographic information presentations.

Program of Study

The master's degree in geography specializing in Geographic Information Science requires the completion of 10 graduate course credits, two of which are taken during the senior year and two of which are completed during the summer between the senior year and the fifth year. Three of the 10 credits are devoted to the completion of a master's research project. The breakdown is as follows:

Senior year: GEOG397 Advanced Topics in GIS plus one additional 200- or 300- level course approved by the B.A./M.A. adviser. Candidates for the accelerated program are also required to develop a master's research proposal, with a signed statement of support from two faculty sponsors who will act as the adviser and the reader. The proposal must include a three-semester work plan. See the Departmental Requirements section for details on timing.

Summer following senior year: A one-credit internship in Geographic Information Science and a one-credit directed-research project associated with the master's research project. This project is focused on database development for the master's project and may be linked to the internship project. Typically, this course is completed off campus. However, it requires frequent communication with the student's adviser. Details of the mechanism for this communication must be included in the project proposal.

Fifth year: Six graduate course credits (three per semester) of which one credit each semester will be devoted to the completion of the master's research project. In April, the student will be required to give an oral presentation of the findings of the master's research project, along with other students in the GIS and GISDE masters programs. In addition, the student must submit to the B.A./M.A. adviser, by the end of the spring semester, a publication quality paper, associated with the project, certified by the student's adviser and reader.

Of the six courses not associated with the master's project and internship (taken during the senior and fifth years), a minimum of four must be directly associated with Geographic Information Science and two may be electives associated with the application area of specific interest to the student.

Departmental Eligibility Requirements

To be eligible for the accelerated M.A. program in Geographic Information Science, the student must complete a B.A. with a major (or second major) in geography at Clark and meet all University requirements for entry into the accelerated program. In addition, the student must have completed GEOG190 Introduction to GIS, GEOG206 GIS and Local Planning, and GEOG397 Advanced Topics in GIS by the end of their senior year.

In accordance with these requirements, students who have declared their intention to apply for the accelerated B.A./M.A. program must submit a formal application to the Graduate School of Geography by October 15 of their senior year. Then by April 1 of the senior year, it is necessary to submit, to the geography B.A./M.A. program adviser, evidence (such as a current transcript) that all course requirements will be met, and an approved master's project proposal, signed by a geography faculty adviser and a reader. The reader can, with the approval of the geography B.A./M.A. program adviser, be a faculty member from outside geography. Final offers of admission will be made by the graduate dean.

Lab Fee

Because of the very heavy costs associated with hardware and software licensing in the GIS and Image Processing area, students will be required to pay a lab fee of $1000 per semester (fall and spring) during the completion of their fifth-year program.

Contact Person

The geography B.A./M.A. program adviser is Professor John Rogan; 508-793-7562; jrogan@clarku.edu.

M.A. in Geographic Information Sciences for Development and Environment

The International Development, Community and Environment (IDCE) Department and the Graduate School of Geography offer this specialized degree for early and mid-career professionals with responsibilities in mapping, environmental database development, resource management, planning, policy implementation and monitoring. The 12-month time frame enables professionals to take a one-year leave of absence to complete the degree. The program is technically oriented with an emphasis on integration with social aspects of international development required of the practicing GIS analyst. For further information, please contact the IDCE department: telephone: (508) 793-7201; fax: (508) 793-8820; e-mail: idce@clarku.edu. Please see the Web site www.clarku.edu/departments/idce/gis

Doctoral Program

The Graduate School of Geography has awarded more doctorate degrees than any other geography program in the United States. Students are not accepted for master's studies only, although many choose to earn that degree en route to the doctorate. The M.A. is also available to those who leave the program early. For information on the Master of Arts in Geographic Information Sciences for Development and Environment, please see the program Web site (www.clarku.edu/departments/idce/gis).

Applicants with or without prior training in geography are welcome. Depending on their concentrations, students may be required to improve their knowledge of geography, cartography, quantitative methods or research methods. Graduate Record Examination scores (verbal, quantitative and analytical) are required of all American and Canadian students, as well as international students who are in an academic program where English is the first language. TOEFL scores or results of another English proficiency test are required for students from countries in which English is not the first language. The deadline for graduate applications is January 15. All applicants receive careful consideration from a faculty-student admissions committee, which meets early in the spring semester to evaluate candidates. For further information and application materials, please view our Web site (www.clarku.edu/ departments/geography) for application materials, which may be downloaded; or contact the graduate admissions coordinator, Madeleine Grinkis, in writing or by telephone: (508) 793-7337/7336; fax: (508) 793-8881; or e-mail: geography@clarku.edu.

Requirements

Applicants should request a copy of current guidelines and degree requirements from the graduate admissions coordinator (see above).

The graduate curriculum provides an opportunity for students to pursue studies across the full array of geography: human geography (space-society), human-environment geography (nature-society), biophysical geography and the mapping sciences. Students are encouraged to explore faculty and research interests across these geographies in combination with work in complementary fields and disciplines within and outside of Clark.

Requirements include 16 course credits (eight for those entering with an M.A.); satisfactory completion of doctoral examinations; fulfillment of a skills requirement; and completion, acceptance and successful defense of a dissertation. Also required are three years of residence (or two and one-half for those entering with an M.A. in geography). The normal course load is three courses per semester. The usual sequence students follow is: course work, doctoral exam, research proposal, and dissertation research, write up and defense.

In the first year, students normally complete the two required courses, GEOG318 Explanation in Geography and GEOG368 The Development of Western Geographic Thought, and take additional courses to help refine their interests. Students then meet with advisers for evaluation and planning.

In the second year, students are encouraged to fulfill the skills requirement, to prepare for doctoral exams and to begin dissertation proposal formulation. Course work normally includes seminars, directed readings and directed research. A review of the student's progress is held at the end of the year. Students who have not already completed their doctoral exams and dissertation proposal are expected to do so in the third year of study.

Students must demonstrate, through course work or examination, proficiency in two of the following areas: multivariate statistics, research design/research methods, geographic information systems, foreign language, or other courses approved by the student's faculty adviser and the director of the Graduate School of Geography.

The doctoral exam assesses the competency of a graduate student in one major and two minor fields. Competency is defined as an understanding of the substantive content and range of theoretical approaches within each subfield. Students must be able to critique the alternative research traditions and defend the theoretical frameworks they adopt. They are expected to have in-depth knowledge of the major field, to master a survey of the first minor field, and to demonstrate detailed knowledge of a single subfield in the second minor.

The doctoral examination is conducted orally. The examination in the major field lasts approximately one-and-a-half hours, and each minor takes about 45 minutes. At the student's discretion, the major and/or first minor may have a written component, which is in addition to the oral examination.

A formal proposal for dissertation work must be completed and approved by a committee of at least four faculty, one of whom is from outside the school. The proposal is approved after a formal defense before the committee.

The process of conducting and writing up the dissertation research involves close interaction between student and committee members. After extensive criticism and rewriting, a draft thesis is defended at a working session of the committee. A final version incorporating changes suggested at the draft stage is submitted for approval by the dissertation committee. At the discretion of the committee, the director and the student, a public presentation and dissertation signing ceremony may be scheduled.

Program Faculty

Jody Emel, Ph.D., *Chair*
David Angel, Ph.D.
Yuko Aoyama, Ph.D.
J. Ronald Eastman, Ph.D.
Susan Hanson, Ph.D.
Laurence Lewis, Ph.D.
Deborah Martin, Ph.D.
Richard Peet, Ph.D.
Colin Polsky, Ph.D.
R. Gil Pontius, Ph.D.
Samuel Ratick, Ph.D.
Dianne Rocheleau, Ph.D.
John Rogan, Ph.D.
B. L. Turner, Ph.D.
Deborah Woodcock, Ph.D.

Adjunct and Affiliated Faculty

Kiran Asher, Ph.D.
David Bell, Ph.D.
Halina Brown, Ph.D.
Brian Cook, Ph.D.
Patrick Derr, Ph.D.
Timothy Downs, D.Env.
William Fisher, Ph.D.
Jacqueline Geoghegan, Ph.D.
Robert Kates, Ph.D.
Todd Livdahl, Ph.D.
Eugenio Marcano, Pd.D.
Paul Posner, Ph.D.
Robert J. S. Ross, Ph.D.

Emeritus

Robert Cameron Mitchell, Ph.D.

Program Overview

Citizens of the world in the 21st century must deal with notoriously difficult environmental questions. How can we stop the planet from heating up and reduce our dependency upon fossil fuels? How can we reverse biodiversity decline? Is biotechnology safe for humans and other species? How can we achieve more economic justice and protect the environment at the same time? Will international institutions and social movements lead the way?

The purpose of the global environmental studies major is to provide students with the knowledge and tools to explain the causes of environmental transformation, degradation and exploitation across scale - from the local to the global. More importantly, the major affords students opportunities, through study, internships and field work, to consider and develop solutions to environmental problems. Students will look at global environment and development issues through the eyes of people whose lives, livelihoods and ways of living are at stake in the process of economic, ecological, cultural and political change. Students will contend with the economic practices, laws and policies, cultural values and social norms that guide use of the environment in multiple locations with different climates, histories, economies and governing regimes. Students will learn the histories, geographies and strategies of major social movements, which have fought for environmental protection, cultural survival, biodiversity, food security, common property and equitable distribution of resources.

The international community needs professionals with a breadth of understanding of today's complex reality. Students with an understanding of international political economy, global environmental change, environmental information systems, environmental law and policy, geographic information systems, gender and environment, and social theory will be able to go into media, finance, law, advocacy, government, civil-society organizations or corporations with the knowledge and skills necessary for shaping sustainable livelihoods.

Major Requirements

The major provides a general introduction into the interdisciplinary field of global environmental studies, and the opportunity to study a particular dimension in depth. In addition, there is a skills requirement and a capstone seminar requirement. The total number of requirements is 13 courses—six breadth, four depth, two skills and the capstone. At least four of these courses must be taken at the 200 level.

Breadth Requirement

(Total of six courses) Environmental problems and solutions result from economic systems, governments, international institutions, cultural systems, social movements, and ecological systems. Students will thus choose courses from each of these dimensions to build a breadth of knowledge in the field.

Depth Requirement

(Students must take a total of four courses in a substantive area, two of which must be at the 200 level.) The field of global environmental studies is large, and students should develop expertise in a more narrowly defined substantive area. Examples include: culture and environment, urban environment, resource management, land-change, enviromental risks and hazards and land-degradation science. Students are encouraged to define their areas of substantive expertise through conversations with their advisers and as part of the formal learning plan.

Skills Requirement

(Total of two courses) Skills are particularly important to promoting excellent analysis of environmental problems and their solutions. They are of critical importance in gaining employment after graduation and should be carefully chosen.

Capstone

The capstone is intended to draw together the knowledge and skills gained throughout the course of study for completing the requirements of the major. Each year a series of capstone courses is offered. The chosen capstone should complement the work completed previously by the student and be in accordance with the student's formal learning plan.

A Formal Learning Plan

Each student is required to prepare a formal learning plan that establishes the logical connections among the specialization courses and the elective skills courses. The learning plan is typically a single page in length and requires signatures by the student, faculty adviser and director or undergraduate adviser. This approval process should normally be obtained before the end of the spring semester of the junior year and must be completed before senior clearance will be granted.

Internships and Study Abroad

Students are strongly encouraged to do internships with local, state, federal and international governments and social movement organizations for major credit. Similarly, study abroad provides students the opportunity to witness first hand the environmental issues that arise in other parts of the world and to be a part of their analysis and solution. To receive credit for study abroad, students must work with faculty advisers or other departmental and affiliate professors.

Requirements for the Dual Major

In accordance with university guidelines, the requirements for a dual major are identical to those of the individual major. Students may not, at this time, double major in Global Environmental Studies and Geography.

Course Layout:

I. **Breadth Requirement** (total of 6 courses)

A. State of the Earth

(Choose one course)

- EN171 International Perspectives on Environmental Problems and Policies
- GEOG179 Globalization, Environment and Justice
- GEOG180 The Earth Transformed by Human Action

B. Physical Science

(Choose two of the following courses)

- BIOL216 Ecology
- EN120 Discovering Environmental Science
- GEOG014 Weather, Climate and Landforms
- GEOG101 Introduction to Environmental Geology
- GEOG102 Understanding the Weather
- GEOG103 The Natural Environment of New England
- GEOG115 Introduction to Hydrology

GEOG232 Landscape Ecology
GEOG263 Climate Systems and Global Environmental Change

C. Economics/Political Economy of the Environment

(Choose one of the following courses)

ECON 157 Economics of Natural Resources and Environment
GEOG016 Introduction to Economic Geography
GEOG126 Living in the Material World: Political Geography of Resource Development.
GEOG127 Political Economy of Development
GEOG152 Geography of Globalization
GEOG224 Economy and Environment
ID125 Tales from the Far Side

D. Institutions/Culture/Politics

(Choose one of the following courses)

EN171 International Perspectives on Environmental Problems and Policies
EN276 Environmental Law
EN286 Sustainability, Institutions and Policy Making
ID294 Participation and Environmental Management
GOVT157 The Politics of U.S Environmental Issues
GOVT216 Comparative Environmental Politics

E. Civil Society/Social Movements

(Choose one of the following courses)

GOVT251 U.S Social Movements and Interests
ID131 Local Action/Global Change
ID253 Social Movements, Globalization and the State
SOC265 Social Movements: Quest for Justice

II. Depth Component (Students must take four courses in a substantive area, examples follow, two of which must be at the 200 level.)

A. Culture and Environment

GEOG105 Keeping of Animals: Patterns of Use and Abuse
GEOG136 Gender and Environment
GEOG237 Feminism, Nature and Culture
GEOG277 Gender, Environment and Development
ID245 Culture, Politics and International Development
PHIL131 Environmental Ethics

B. Urban Environment

GEOG250 Technology and Environmental Assessment
GEOG254 Urban Transportation: Problems and Prospects
GEOG256 Global Economic Geographies
GEOG280 Urban Ecology: Cities as Ecosystems
MGMT252 Corporate Environmental Management

C. Environmental Risks and Hazards

GEOG022 Why Global Warming Matters
GEOG207 Soil Erosion: Measurement to Assessment
GEOG226 The Societal Analysis and Evaluation of Environmental Hazards: Theory and Methods
GEOG247 Quantitative Methods in Geography
GEOG250 Technology and Environmental Assessment
GEOG261 Decision Methods for Environmental Managementand Policy

D. Resource Management

EN240 Energy and Environment
EN271 Sustainable Fisheries
GEOG105 The Keeping of Animals: Patterns of Use and Abuse
GEOG115 Introduction of Hydrology and Water Resources
GEOG126 Living in the Material World: The Political Geography of Resource Management
GEOG237 Feminism, Nature and Culture
GEOG271 Groundwater Hydrology and Management
GEOG282 Tropical Ecology

E. Land-Change and Land-Degradation Science

- GEOG022 Why Global Warming Matters
- GEOG200 Land Degradation
- GEOG207 Soil Erosion: Measurement to Assessment
- GEOG211 African Environments and Geographical Implications
- GEOG228 Management of Arid Lands
- GEOG234 Geography of Fire
- GEOG281 Tropical Ecology
- IDND299 HERO

III. Skills (Two required, one related to substantive specialization)

- GEOG087 Introduction to Environmental Information Systems
- GEOG110 Introduction to Quantitative Methods in Geography
- GEOG141 Research Methods in Geography
- GEOG250 Technology and Environmental Assessment
- GEOG255 Qualitative Research
- GEOG261 Decision Methods for Environmental Management and Policy
- GES226 Environmental Risk/Hazards/Vulnerability—Theory, Models and Applications. Prof. Polsky
- ID190 Introduction to GIS
- ID260 Quantitative Modeling

IV. Capstone

- IDND299 HERO

Honors Program

The honors program in global environmental studies gives the advanced student the opportunity to conduct a major independent research project on a topic of interest to him or her. To graduate with honors a student must successfully complete a two-semester independent honors project conducted under the supervision of a faculty adviser and one additional faculty member.

Successful completion of the honors project will be recognized at commencement. Most students will produce the honors thesis during the senior year although in some circumstances students may opt to enroll in the honors program for the spring semester of the junior year and fall semester of the senior year. GES honors is open to juniors who, by the end of the first semester of the junior year, have a minimum grade-point average of 3.25 overall and 3.5 in the global environmental studies major and who can demonstrate the appropriate research background to undertake independent global environmental research.

For further information about the GES honors program and the GES undergraduate major, please contact the undergraduate adviser for the major, Professor Jody Emel at 508-793-7317 or email: jemel@clarku.edu and view our Web site (http://www.clarku.edu/departments/ges/).

Global Environmental Studies Minor

Students wishing to minor in Global Environmental Studies must complete the following components of the regular program of the major (for a total of eight courses):

Breadth Requirement: one course in each dimension, including state of the earth, physical science, economics/political economy, institutions/culture/politics, and civil society/social movements.

Depth Requirement: two courses, including one at the 200-level.

Skills Requirement: one skills course

School of Geography Courses

GEOG010 ENVIRONMENT AND CULTURE/FIRST-YEAR SEMINAR

Students will be introduced to major works in the humanities and sciences, which have contributed to a current environment consciousness. The interrelation of nature and human culture within the last 200 years in North America will be the primary focus of our course. Writers studied include Henry David Thoreau, Charles Darwin, Aldo Leopold, Rachel Carson, Henry Beston, Donald Worster and Annie Dillard. The seminar will offer several field trips and opportunities to "read" landscapes. Fulfills the historical perspective. First preference for enrollment in this seminar will be given to students with a strong interest in Clark's environmental concentration or the environmental science and policy major. Others will be admitted on a space-available basis. Mr. Johnson/Offered every other year

GEOG011 THE WORLD ACCORDING TO GEOGRAPHY/LECTURE, DISCUSSION

Introduces students to the breadth of the discipline of geography. The course explores the four themes of geography in theoretical terms: nature-society interactions; globalization, cities, and development; earth sciences; and geographic information sciences. The course explores several critical applied geographical research themes, including global warming, economic globalization, sustainable development and regional studies. Fulfills the comparative perspective. Mr. Polsky/Offered every year

GEOG014 WEATHER, CLIMATE AND LANDFORMS/LECTURE, LABORATORY

A basic inquiry into principles and components of landforms and climates. Provides background for evaluating environmental problems, including the role of human activities on physical processes. Fulfills the science perspective. Mr. Lewis/Offered every year

GEOG016 INTRODUCTION TO ECONOMIC GEOGRAPHY/LECTURE, DISCUSSION

An introduction to the study of industrial geography and regional development. Uncovers the hidden spatial logic behind the emergence of manufacturing zones, shopping malls, financial centers and suburban residential zones. Explores how these locational patterns are being affected by globalization. Discussions will focus on the role of technological progress, industrial organization and government policy in shaping the locations of production and services, and how they affect regional growth and decline. Assignments include a report on a multinational corporation and its locational and strategic behavior. Fulfills the comparative perspective with international orientation. Ms. Aoyama/Offered every year

GEOG017 CULTURE, PLACE AND THE ENVIRONMENT/LECTURE

Ecological and historical approach to cultures and cultural change in a global and spatial context. Broad themes and problems of North America are emphasized: adaptation to "natural" environment; culture in prehistory; migration; creation of cultural areas; fire as a cultural artifact; world views of primitive, traditional, and industrial culture; cultural landscape; cultural geography of the United States. One weekly discussion section. Fulfills the comparative perspective. Mr. Johnson/Offered every year

GEOG020 INTRODUCTION TO URBAN GEOGRAPHY/LECTURE, DISCUSSION

This course examines the history and contemporary processes of urbanization, primarily in the North American context, with particular attention to the geography of these processes, which results in the differentiation of space and the creation of distinct places. The course covers a range of topics relevant to cities, including historical development, governance, social patterns, economics, planning, contemporary problems and the linkages among all of these. We examine the geography of urbanization at several scales, ranging from the development of the North American urban system to the experiences of neighborhoods within cities. Ms. Martin/Offered every year

GEOG022 WHY GLOBAL WARMING MATTERS/ FIRST-YEAR SEMINAR

Climate change (global warming)is the single greatest problem facing the planet today. Or is it? In this seminar students will peel away the rhetoric surrounding global climate change, so that they may be able to understand why this issue matters not only to international policymakers but also to individuals and their daily lives. Topics for exploration will focus on the causes and consequences of climate change and justification (and options) for action. The breadth of areas the climate change issue intersects – including but not limited to politics, economy, ecology, epistemology, ethics – suggests that global warming is a crucial integrating theme for the discipline of geography and, more importantly, the intellectual foundation of a well-rounded student. Fulfills the values perspective. First preference for enrollment will be given to students interested in the following Clark majors: Geography, Global Environmental Studies, and Environmental Science and Policy. Others will be admitted on a space-available basis. Mr. Polsky/Offered every other year

GEOG075 SEMINAR IN LAND DEGRADATION/ FIRST-YEAR SEMINAR

Land degradation is defined as the decrease in an area's potential biomass productivity or utility to humans. Since the invention of fire, humans have modified the environment—sometimes accidentally and sometimes on purpose. Sometimes environmental modification is beneficial, but all too often it isn't. Given that technologies exist to prevent land degradation, why does it still continue? This seminar examines both from the theoretical and applied perspectives of land degradation. Students will be expected to develop a case study on land degradation and critically analyze it. Fulfills the comparative perspective. Mr. Lewis/Offered every third year

GEOG085 INTRODUCTION TO THE MAPPING SCIENCES/LECTURE, LABORATORY

Introduces mapping sciences in relation to geography. Covers geodesy, surveying, cartography, airphoto interpretation, photogrammetry, remote sensing and geographical information systems. The topics are studied separately and as integral elements in the emerging field of spatial information systems. For first-year students, majors and nonmajors. Fulfills the science perspective. Mr. Steward/Offered every year

GEOG087 INTRODUCTION TO ENVIRONMENTAL INFORMATION SYSTEMS/LECTURE, LABORATORY

An introduction to fundamental concepts of environmental geographic information science, and a comprehensive survey of the technologies and institutions involved in producing and using geographic data. These include the global positioning system, aerial surveys and photogrammetry, topographic mapping, social surveys such as the U.S. Census, and satellite remote sensing. Overall, this class is a combined introductory class to Geographic Information Systems (GIS), Cartography and Remote Sensing (RS). Fulfills the science perspective. Mr. Rogan/Offered every year

GEOG090 NATIVE AMERICANS AND NATURAL RESOURCES/FIRST-YEAR SEMINAR

This course deals principally with the efforts of Native Americans to manage resources, resist land and resource seizures by corporations and federal and state governments, and repair damage done to ecological systems. Examines the history of resource development on Native American lands; natural resource development impacts; contested concepts of "development" and "progress"; and new approaches to resource management including the salmon restoration, buffalo management, and wolf reintroduction. These cases will be complemented with others from around the world to gain an understanding of how indigenous peoples deal with mining and other resource development efforts on and near their lands. Ms. Emel/Offered every other year

GEOG101 INTRODUCTION TO ENVIRONMENTAL GEOLOGY/LECTURE, LABORATORY

An introduction to the basic principles of physical, historical and environmental geology. Topics covered include the formation of earth and earth materials, plate tectonics, landform evolution, glaciology and the history of life. The relevance of geology for current issues such as geologic resources, water quality and global change is emphasized. Fulfills the science perspective. Staff/Offered every year

GEOG102 UNDERSTANDING THE WEATHER/ LECTURE, LABORATORY

Designed as an introduction to meteorology and the atmosphere focusing on atmospheric phenomena and processes and the physical laws and principles that govern them. The goal of the course is to understand the weather and the range of atmospheric phenomena that can be experienced or observed in the atmosphere on a daily basis. Staff/Offered every year

GEOG103 THE NATURAL ENVIRONMENT OF NEW ENGLAND/FIELD COURSE

Principles of physical geography as observed in New England and Central Massachusetts. Classes and fieldwork will be held at Tower Hill Botanic Garden. The topics covered will constitute a systematic look at the physical and natural environment of this region. Integrating themes of the course are energy and its transformation in the environment and the way that interactions at a variety of spatial and temporal scales act to sculpt the landscape and affect local ecosystems. The course is strongly field- and research-oriented and will include field projects carried out jointly as well as research projects and proposals done individually by students. Fulfills the science perspective. Staff/Offered every year

GEOG105 KEEPING OF ANIMALS: PATTERNS OF USE AND ABUSE/LECTURE, DISCUSSION

Animals play a prominent role in human life. They sustain us, entertain us and provide companionship and solace. Pests and predators compete with humans for food, while harmful diseases lurk unseen in animal reservoirs. Images of goodness and evil reflect the ambivalent attitudes and cultural prejudices that govern human responses to animals. This course explores the cultural, historical and ecological interactions between people and animals, and balances utilitarian and ethical perspectives on current patterns of animal use and abuse. Fulfills the comparative perspective. One weekly discussion section. Mr. Johnson/Offered every other year

GEOG107 MIRACLES OF ASIA: ECONOMIC GROWTH IN GLOBAL CONTEXTS/LECTURE, DISCUSSION

Explores the reasons behind the rapid rise of Asian economies and their sudden crises. Discussions include the impacts of rapid industrialization on the standard of living, housing, role of the state, multinational corporations, urban problems and ethnic relations in East, Southeast and South Asian countries. Fulfills the comparative perspective with international orientation. Ms. Aoyama/Offered every year

GEOG110/GEOG311 INTRODUCTION TO QUANTITATIVE METHODS IN GEOGRAPHY/ LECTURE, LABORATORY

Introduces the role of the computer in geographic and statistical analysis. Considers data sampling and descriptive and inferential statistical techniques for analyzing geographic data. Includes graphic techniques, tests of hypotheses and regression. Students use computer programs for statistical analysis. No prior exposure to computers or statistics is assumed. The course is suitable for students of all levels and is one for which graduate students may receive credit. A skills course for geography majors. Fulfills the formal-analysis requirement. Mr. Pontius, Staff/ Offered every year

GEOG114 INTERMEDIATE GEOMORPHOLOGY/ LECTURE

Examines the processes resulting in landform diversity. Emphasizes fluvial processes and climate/landform relations. Prerequisite: GEOG014 or a geology course, or permission of instructor. Fulfills the science perspective. Mr. Lewis/Offered every other year

GEOG115 INTRODUCTION TO HYDROLOGY AND WATER RESOURCES: A GEOGRAPHICAL VIEW/LECTURE, DISCUSSION

This course provides an overview of the hydrologic cycle and its major components including precipitation, evapotranspiration, soil moisture, surface water runoff and groundwater flow. Students learn about the varying uses to which humans put water, watershed and other water management concepts, systems of water law and conflict management, water economics and the global geography of water resources. Ms. Emel/Offered every other year

GEOG118 ENVIRONMENT AND DISASTERS/ LECTURE

Examines basic concepts and processes within the earth sciences, relative to the evaluation of risks and decisions on future policies of land use and resource utilization. Emphasizes aspects of the environment of particular interest to geographers, geologists and planners. Prerequisite: GEOG014 or permission of instructor. Staff/Offered every third year

GEOG126 LIVING IN THE MATERIAL WORLD: THE POLITICAL GEOGRAPHY OF RESOURCE DEVELOPMENT/LECTURE, DISCUSSION

Focuses on institutions that govern the development, allocation, and use of natural resources like water, minerals, trees and animals. Emphasizes approaches used by geographers to study natural resources. Case studies provide an opportunity to examine differences between societies (or economies) and between specific resource issues. Water in the western United States, Israel, or India; gold in Ghana, the United States and South Africa; and animal use in India, Great Britain and China are some examples of typical cases. Fulfills the comparative perspective. Ms. Emel/Offered every other year

GEOG127 POLITICAL ECONOMY OF DEVELOPMENT/LECTURE

What makes some countries rich and others poor? Theories of development try to answer this fundamental question. This course critically examines the leading theories of development: classical, neoclassical and Keynesian economies; social modernization theory; Marxist and neo-Marxist theories; poststructural critiques and postdevelopmentalism; feminism and feminist critiques of development. Fulfills the comparative perspective. Mr. Peet/ Offered every year

GEOG132 BEFORE AND AFTER COLUMBUS: ANCIENT MIDDLE AMERICA AND THE IMPACT OF THE CONQUEST/LECTURE

What were the human-environment conditions and dynamics in Middle America (Caribbean, Central America, Mexico) previous and subsequent to 1492? What were some of the global consequences of the European encounter with Middle America? This course approaches these questions from archaeology, history and environmental studies, placing them within cultural ecology perspectives. Mr. Turner/Offered periodically

GEOG136 GENDER AND ENVIRONMENT/LECTURE, DISCUSSION

Explores how gender is reflected in the landscape, in our settlement and land-use patterns, in environmental history, and in our present ecological science and practice from the global to the local level. Combines lectures, readings, discussions, films and local field trips. Reviews feminist and other alternative explanations of the gendered nature of knowledge, access, use and control of space and resources in environments—past, present and possible. Regional focus on New England. Fulfills the values perspective. Ms. Rocheleau/Offered every year

GEOG141 RESEARCH METHODS IN GEOGRAPHY/ LECTURE, DISCUSSION

Focuses on ways empirical social-science research is conducted. Students study problems, methodological strategies and analytical techniques characteristic of current social and geographical research. Includes defining a research problem, measurement, sampling, research design, analysis and writing the report. Fulfills the formal-analysis requirement. A required skills course in the geography major. Ms. Hanson, Ms. Martin/Offered every year

GEOG152 GEOGRAPHY OF GLOBALIZATION/ FIRST-YEAR SEMINAR

An introduction to the study of globalization and geographical variations in its impacts. Examines the issues of development, income disparity across regions and nations, the emergence of multinational corporations, the impacts of government policy and the role of information technologies in globalization. Fulfills the comparative perspective with international orientation. Ms. Aoyama/Offered every other year

GEOG179 GLOBALIZATION, ENVIRONMENT AND JUSTICE/LECTURE, DISCUSSION, FIRST-YEAR SEMINAR (IN ALTERNATE YEARS)

Integrates ecology and political economy from local to global scale through case studies. Starts from a view of people in environmental "hot spots," following links to world economy and planetary ecosystems. Explores connections of international environmental and economic policy with everyday realities and possible ecological futures of people from the Amazon rain forest to the streets of Worcester. Offered as a first-year seminar (fulfills the comparative perspective and verbal-expression requirements) and as a lecture course (fulfills the comparative perspective) alternate years. Ms. Rocheleau/ Offered every other year

GEOG180 THE EARTH TRANSFORMED BY HUMAN ACTION/LECTURE, DISCUSSION

Traces the course of human modification and transformation of the earth since antiquity, but with particular emphasis on the last 300 years. The major causes and consequences of these changes are explored from global climate change to the sustainability of life. Verbal expression and nonverbal expression sections. Mr. Turner/Offered every year.

GEOG184 LANDSCAPES OF THE MIDDLE EAST/ LECTURE, SEMINAR

An array of landscapes, economies and cultures comprise the Middle Eastern culture realm. Studies modernization and transformation of traditional Islamic and non-Islamic life and livelihood in the Middle Eastern cultural mosaic. Literature and ethnographic description supplement geographic analysis. Mr. Johnson/ Offered every other year

GEOG200/GEOG301 LAND DEGRADATION/ SEMINAR

Resource use often results in degradation of aquatic and terrestrial productivity. Roles of agriculture, deforestation, urbanization and industrialization on land degradation problems are examined in a contemporary and a historical framework. Mr. Lewis, Mr. Johnson/Offered every other year

GEOG211/GEOG312 AFRICAN ENVIRONMENTS AND GEOGRAPHICAL IMPLICATIONS/LECTURE, DISCUSSION

Through an examination of the five major environmental conditions found on the continent, a series of topics will be examined. In particular, relationships of the environment to the patterns of political change from precolonial to the present, land degradation and urbanization will be explored. Mr. Lewis/ Offered periodically

GEOG217/GEOG317 HISTORY OF CARTOGRAPHY/SEMINAR

An introductory survey based on the idea of the map as a mirror of culture. Material ranges in place, time and context, from the fragmentary records of ancient map making and the impulses behind empires and exploration to the statecraft and complexities of the 20th century. Individuals, technologies, motivations and historical settings are all examined. Fulfills the historical perspective. Permission of instructor required. Mr. Steward/Offered every year

GEOG218/GEOG319 SEMINAR IN PHYSICAL ENVIRONMENT AND DEVELOPMENT/SEMINAR

The world today is changing more rapidly than at any time in history. This course reviews the patterns of change in the Third World, examines the role of environment and resource management in development and allows students to develop their own in-depth case studies. Permission of instructor required. Mr. Lewis/Offered every other year

GEOG222/GEOG322 WHY GLOBAL WARMING MATTERS/SEMINAR

Offers students the chance to examine the causes, consequences, responses and political debates associated with anthropogenic climate change (global warming). Mr. Polsky/Offered every other year

GEOG224/GEOG324 ECONOMY AND ENVIRONMENT/LECTURE, DISCUSSION

Addresses historic intersection of industrialization, urbanization and ecology. Examines economic, environmental and political conflict over the past 300 years to gain historic depth on contemporary issues. London air pollution, New York City water supplies, mechanized fishing in the Pacific, European coal mining and American forestry product industries will be considered. Ms. Emel/Offered periodically

GEOG226/GEOG326 ENVIRONMENTAL HAZARDS—THEORY, MODELS AND APPLICATIONS/SEMINAR, LECTURE, DISCUSSION

Introduces advanced undergraduate students and graduate students to the study of environmental hazards, environmental management and policy, and social impact analysis. Students will explore traditional theories and models underlying hazard analysis, the current debates and research frontiers in the field, and some applied risk/hazard issues of societal concern. Course activites will help students develop the knowledge and writing, presenting and critical reasoning skills necessary for evaluating environmental risks and hazards. Mr. Polsky/Offered every year

GEOG228/GEOG328 MANAGEMENT OF ARID LANDS/LECTURE, SEMINAR

The world's drylands present special development problems. Prone to degradation, they face the difficult task of providing support to a rapidly growing population. The history, demography, behavioral characteristics, social and livelihood systems, and physical constraints of dryland ecosystems are analyzed. Evaluates management strategies, identifying the obstacles constraining their growth, and assesses the future development and application potential of drylands. Mr. Johnson/Offered every other year

GEOG232/GEOG332 LANDSCAPE ECOLOGY/LECTURE, DISCUSSION

Considers the relationships between spatial patterns in landscape structure (physical, biological and cultural) and ecological processes. Role of ecosystem pattern in mass and energy transfers, disturbance regimes, species' persistence, applications of remote sensing and GIS for landscape characterization and modeling are examined. Mr. Rogan/Offered every year

GEOG234/GEOG334 THE GEOGRAPHY OF FIRE/LECTURE, DISCUSSION

Fire has always been, and will always be a 'HOT' topic. This course will be one of the first of its kind offered at a university to both undergraduate and graduate students. It examines relationships between wildfire from a physical, biological and cultural perspective. Topics include: the chemistry and physics of fire, fire behavior (including the influences of fuel and weather), the ecological effects of fire, the cultural and institutional framework of fire management, and the cultural nature of wildfire in society. Mr. Rogan/Offered every year

GEOG237/GEOG337 FEMINISM, NATURE AND CULTURE/SEMINAR

Studies feminist theories of science, rationality and morality-particularly as they apply to nature-society relations. Examines cultural politics of nature across time and space. Film, literature, government reports and academic writing show how images and "truths" about nature and society are constructed. Ms. Emel/Offered every other year

GEOG239/GEOG339 COUNTRY AND CULTURE/LECTURE, DISCUSSION

The landscape can be read! Be it a vast tropical rain forest with an occasional clearing or an intensively cultivated river valley in New England, the rural landscape is the product of an interaction between people (culture) and place (environment). The course traces the evolution of rural landscapes through time and space from early hunter-gatherers to modern suburban encroachment on rural areas. Emphasis is placed on ecological and cultural principles that help to explain the technocultural modification of rural places. Mr. Johnson/Offered every other year

GEOG244/GEOG344 GENDER, WORK AND SPACE/SEMINAR

Explores how a geographic understanding of gender, class and ethnicity can help explain the current restructuring of the global economy. Examines how gender, race, class and ethnicity divide the work force and how location and space shape and sustain such divisions from local to global scales. Evaluates competing explanations for why women and minorities hold jobs that differ distinctly from jobs held by other workers. Ms. Hanson/Offered every other year

GEOG247/GEOG347 INTERMEDIATE QUANTITATIVE METHODS IN GEOGRAPHY/ LECTURE, LABORATORY

Continues development, begun in GEOG110 of computer-based methods in geographical analysis. Focuses on bivariate and multivariate regression, discriminant analysis, factor analysis, log-linear models and analysis of spatial and temporal data. Includes lab work with PCs, spreadsheets and SPSS-X statistical software package. Prerequisite: GEOG110. Meets skill requirement for geography majors and graduate students. Mr. Ratick/Offered every year

GEOG250/GEOG350 TECHNOLOGY AND ENVIRONMENTAL ASSESSMENT/SEMINAR

A survey of analytic techniques used in evaluating environmental conditions and the impacts of technology. These techniques consist of formal methods such as cost-benefit, risk-benefit, cost effectiveness and decision analysis. They also include methods used to elicit human judgement and behavioral responses in evaluating complex environmental and technical systems. Draws on case studies and teaches students to make both quantitative and qualitative assessments. Mr. Ratick/ Offered every year

GEOG254/GEOG354 URBAN TRANSPORTATION: PROBLEMS AND PROSPECTS/LECTURE, DISCUSSION

Without mobility both people and cities would die. How and why have we created cities in which mobility is so difficult? This course examines urban transportation planning and evaluates proposals for solving transportation problems. Includes transportation and land use; energy, equity and environmental issues; managing the automobile; and the politics of urban transportation. Ms. Hanson/Offered every other year

GEOG255/GEOG310 QUALITATIVE RESEARCH METHODS, SKILLS AND APPLICATIONS/LECTURE, DISCUSSION

We cover the purpose, scope and procedures of qualitative research, especially as applied to human geography. Readings will draw on a variety of work in the social sciences, especially anthropology, geography, sociology and women's studies. We examine a range of qualitative methods, including interviews, participant and nonparticipant observation, ethnography, action research and discourse analysis. Through case-study readings, we examine how scholars employ these methods in different research contexts, with particular attention to the ethical and practical considerations of doing so. The course will engage theoretical debates relevant to qualitative research by addressing questions such as: How does qualitative research challenge the practice of social "science" and the search for "universal truths"? How do we represent the world or multiple understandings and perspectives of it? What are the implications of using qualitative data for the researcher, the research product and the "researched"? How do we interpret qualitative data and present it to scholarly audiences? Ms. Rocheleau, Ms. Martin/Offered every year

GEOG256/GEOG356 GLOBAL ECONOMIC GEOGRAPHIES/SEMINAR

Explores dynamics of economic interdependence across regions and nations through analyzing the process of globalization. Focuses on the geographic characteristics of global production (multinational corporations, subcontracting), international trade (logistics), financial flows (global cities) and technological innovation (the Internet). Ms. Aoyama/Offered every other year

GEOG257 INTERNET GEOGRAPHY: SOCIOECONOMIC IMPACTS OF INFORMATION TECHNOLOGIES/LECTURE, DISCUSSION

Examines the role and impact of the Internet on the geography of production and consumption in the contemporary period. Has the Internet Revolution put an end to geography? Has it exacerbated social polarization? How has it helped those in the developing world? How have new technologies changed our industries, daily lives and social relationships? Designed to generate discussions on some of the most contested aspects of new technologies. Readings and discussions will include the development of internet infrastructure, electronic commerce, video games, mobile computing, social movements, accessibility and the digital divide. Ms. Aoyama/Offered every other year

GEOG258/GEOG358 UTOPIAN VISIONS, URBAN REALITIES: PLANNING CITIES FOR THE 21ST CENTURY/ LECTURE, DISCUSSION

Although utopia literally means "no place," utopian thinking has always involved certain material expressions of daily living. The legacy of early urban utopian thinkers is evident in contemporary approaches to urban policy, including urban form and design, redevelopment, urban politics and planning. In this course students will grapple with the ideals of urban planning in the context of the complexities of contemporary cities. Ms. Martin/ Offered every other year

GEOG260/GEOG360 QUANTITATIVE MODELING/LECTURE, DISCUSSION/LABORATORY

Investigates the quantitative and qualitative potential of using mathematical computer models to guide policy in human/environment systems. Students learn to think with a systems perspective while translating their own conceptual models to mathematical models to computer models. Includes lab sessions in the computer room and lectures/discussions in the classroom. The course culminates in written and verbal presentations of student projects. Students gain technical proficiency in the programming language VBA and other software designed for sustainability analysis. Students can apply what they have learned in calculus and statistics. Prerequisites are MATH121 or MATH125, graduate standing or permission. A skill or specialization course in the geography major. Mr. Pontius/Offered every year

GEOG262/GEOG366 URBAN ECONOMIC GEOGRAPHY/SEMINAR

The past two decades have been a period of particular vitality in development of theory, new perspectives, and alternative discourse about the city and the contemporary urban experience. This course examines recent developments in urban geography and details a political economy of urbanization in advanced capitalist societies. Staff/Offered every other year

GEOG263/GEOG363 THE CLIMATE SYSTEM AND GLOBAL ENVIRONMENTAL CHANGE/ LECTURE, DISCUSSION

An in-depth look at the global ecosystem and the science of global environmental change. We will deal with the lithosphere, atmosphere, hydrosphere and ecosphere; the linkages between these elements of the earth system; biogeochemical cycling and human perturbation of these cycles; human-induced changes in atmospheric chemistry and surface processes; climate variability over geologic time; and projections of future change. The goal of the course is to provide the scientific background that is necessary for understanding problems of global change and addressing issues of impacts and the many related social and policy questions. Staff/Offered every year

GEOG271/GEOG371 GROUNDWATER HYDROLOGY AND MANAGEMENT/LECTURE, DISCUSSION

Introduces geological and hydrological factors controlling the occurrence and development of groundwater, and the methods and impacts of groundwater management. Ms. Emel/Offered periodically

GEOG277/GEOG377 GENDER, ENVIRONMENT AND DEVELOPMENT/SEMINAR

Considers gendered identities, affinities, control, responsibility, knowledge, labor and benefits in the definition, use, management and protection of environments. Readings, lectures and discussion focus on the distinct perspectives and concerns of women and men as actors in natural resource use and management and in local, regional and global ecological transformations linked to economic restructuring. Ms. Rocheleau/Offered every year

GEOG280/GEOG380 URBAN ECOLOGY: CITIES AS ECOSYSTEMS/LECTURE, DISCUSSION

Explores ecology and the social and physical geography of cities as systems built, inhabited and managed by people. This class of ecosystem is often neglected except in studies of pollution, yet it is home to many of the world's people and to a surprising number of plant and animal species as well. Readings, lectures, discussion and written work combine landscape and systems ecology with physical and urban geography and environmental justice to broaden our understanding of city environments, both present and possible. Ms. Rocheleau/ Offered every year

GEOG281/GEOG381 TROPICAL ECOLOGY/ LECTURE, DISCUSSION

Examines structure and function of several major tropical ecosystems (rain forests, savannas, wetlands, coastal zones, deserts) from the perspective of systems ecology and resilience, then applies these concepts to analysis of problems in land use. Readings, lectures and discussions focus on energy flows, material cycles, and species diversity and distribution. Explores pattern and process in tropical ecosystems (especially forests and savannas) under conditions of widespread change in species composition, landscape and livelihoods in tropical and subtropical terrestrial environments.
Ms. Rocheleau/Offered every other year

GEOG282/GEOG382 ADVANCED REMOTE SENSING/LECTURE, LABORATORY

Application of remote sensor systems in earth science and other disciplines; interpretation of multispectral scanner, RADAR and thermal imagery, classification, postclassification analysis, special transformations, multitemporal data analysis for change detection, the study of spectral characteristics of vegetation, soils, water, minerals and other materials. The specific objectives of the course are to acquaint the student with the physical principles underlying remote sensing systems and the primary remote sensing data-collection systems; introduce the student to methods of interpreting and analyzing remotely sensed data; provide some insight concerning the applications of remote sensing in various discipline areas; and provide hands-on experience in digital image processing using software packages available in the computer lab. Mr. Rogan/Offered every year

GEOG284/GEOG384 ENVIRONMENT AND DEVELOPMENT IN THE MIDDLE EAST AND NORTH AFRICA/LECTURE, DISCUSSION

From Afghanistan to Morocco, farmers, herders and city dwellers have modified their environment in an effort to develop the region's resources. While many of these changes have been destructive, others have produced sustainable agricultural systems. Today population growth, infrequent zones of high agricultural potential, the constraints imposed by aridity and limited mineral resources (except for oil) restrict development opportunities. The successes and failures that have followed from the efforts of Middle Eastern governments and societies to cope with these limitations and to control desertification, overgrazing, salinization, deforestation and urban blight constitute the focus of this course. Prerequisite: any geography nature-society core course (e.g., GEOG105, GEOG184) or in international development, or by permission of instructor. Mr. Johnson/Offered every other year

GEOG289/GEOG388 DEVELOPMENT POLICY/ SEMINAR

A research seminar for students with some background in development studies. The seminar critically examines recent tendencies in development, emphasizing the policies pursued by the IMF, World Bank and WTO. Mr. Peet/ Offered every year

GEOG290/GEOG399 DIRECTED RESEARCH: NASA UAV PROJECT

Students will actively participate in actual missions involving Unmanned Aerial Vehicles functioning as suborbital imaging platforms. The focus of the course will be image analysis for precision agricultural applications and/or forest-fire management. Long-distance learning with research scientists based at the NASA Ames Research Center in California is part of the course curriculum. Students also will have an opportunity to be based at the UAV Applications Center in the NASA Research Park in California for a one-week period during spring break. GEOG293 Digital Image Processing is a prerequisite. Mr. Herwitz/ Offered every other year

GEOG293/GEOG393 DIGITAL IMAGE PROCESSING/LECTURE, LABORATORY

Examines the range of digital procedures used for the restoration, enhancement and classification of remotely sensed imagery. A strong emphasis is placed on the acquisition of skills that can be applied in the development of data layers for GIS. Prerequesite: GEOG190. Mr. Eastman/Offered every year

GEOG300 ADVANCED TOPICS IN PHYSICAL GEOGRAPHY/SEMINAR

Graduate-level examination of theories and concepts of physical geography. Focuses on research interests of the faculty and students taking the course. Prerequisite: permission of instructor. Mr. Lewis/Offered periodically

GEOG314 RESEARCH DESIGN AND METHODS/ SEMINAR

Covers major topics in empirical social research design and methodology, including problem definition, research strategies, measurement, sampling, data-collection techniques and procedures and proposal writing. Mr. Polsky/Offered every year

GEOG318 EXPLANATION IN GEOGRAPHY/ SEMINAR

Explores several main types of explanation including positivist, existentialist, realist, Marxist, feminist and postmodernist. Focuses on tensions between structural and nonstructural explanation and the integration of theory and empirical facts. Meets first-year core course requirement for geography graduate students. Mr. Peet/Offered every year

GEOG330 HUMAN-ENVIRONMENT/NATURE-SOCIETY SCIENCE AND STUDY/SEMINAR

Traces the history of modern thought in human-environment geography leading to cultural and political ecology, integrated environment science and sustainability science. Mr. Turner/Offered periodically

GEOG335 FEMINIST GEOGRAPHY/SEMINAR

Explores the intersection of feminism and geography. Topics include feminist theory, epistemological questions in feminist geography, social movements, welfare politics and the state, and work. Ms. Hanson/Offered every other year

GEOG343 SEMINAR IN HUMAN DIMENSIONS OF GLOBAL CHANGE: IMPACTS AND SOCIETAL RESPONSES/SEMINAR

Explores societal responses to global environmental change. Addresses impact analysis, adaptation vs. adjustment, surprise, vulnerability analysis, policy analysis, social learning, precautionary strategies and international institutions and regimes. Mr. Polsky/Offered periodically

GEOG344 SPECIAL TOPICS IN ENVIRONMENT AND DEVELOPMENT/SEMINAR

Addresses specific topics relevant to critical and practical studies of environment and development. The course will operate on a seminar format with scope to accommodate reading groups on specific themes within the class. The topics will include, but will not be limited to the following: complexity theory, network theory and models; women's movements and environment and women in environmental movements; environmental dimensions of the World Social Forum and related movements; the commons and common property in local and global forestry; indigenous knowledge, environment and local/global science; international case studies of sustainable development alternatives; regionally focused studies of environment and development in selected regions within Africa, Caribbean, Central and South America. Ms. Rocheleau/ Offered every year

GEOG345 QUANTITATIVE REVOLUTION: EXAMINATION OF BENEFITS AND LIMITATIONS OF STATISTICAL ANALYSIS FOR HUMAN GEOGRAPHY RESEARCH/ SEMINAR

Students will investigate the consequences of specifying regression models that violate assumptions, and the range of alternative specifications that permit insight into the ways in which both large- and small-scale factors influence and are influenced by social and natural processes. Mr. Polsky/Offered periodically

GEOG351 SEMINAR IN RESOURCE GEOGRAPHY: THEORY AND METHOD/SEMINAR

Examines theories and methods of resource estimation, allocation and management, providing coverage of the scholarly literature of the field. Ms. Emel/Offered every other year

GEOG353 INTERNATIONAL POLITICAL ECOLOGY/ LECTURE, DISCUSSION

Integrates theory and practice from cultural ecology, political economy and ecological science, from local to global scale, based on readings and papers in social theory (feminist, structuralist, poststructuralist), policy, social/environmental movements, ecological paradigms, environmental management, sustainable development and conservation. Reading, writing and discussion combines theory and case studies ranging from rural, agrarian cases to urban, industrial contexts. Ms. Rocheleau/Offered every other year

GEOG355 SOCIAL FORESTRY, AGROECOLOGY, AND DEVELOPMENT/SEMINAR

Considers importance of trees and forests, as well as sustainable farming practice, to social and ecological well-being of people, emphasizing interests of rural people in Africa, Asia and Latin America. Examines forest and agricultural resources as a growing focus of political and economic action at local, national and international levels. Concentrates on case-study examples of technical and policy innovations in social forestry and agroforestry. Ms. Rocheleau/Offered periodically

GEOG362 SEMINAR ON GLOBALIZATION

Examines contemporary literature on global economic change. Both theoretical and empirical literature on governance, interdependence, labor and networks will be analyzed. Discussions intended to generate geographic paradigms to better understand the relationship between the global and the local. Ms. Aoyama/ Offered every other year

GEOG365 GRADUATE SEMINAR IN ECONOMIC GEOGRAPHY/SEMINAR

Reviews historical and contemporary debates in economic geography. Emphasis is placed on understanding conceptual frameworks and main assumptions of a variety of pertinent theories, including that of industrial location, regional development, industrial organization and technological innovation. Ms. Aoyama/ Offered every year

GEOG368 THE DEVELOPMENT OF WESTERN GEOGRAPHIC THOUGHT/SEMINAR, DISCUSSION

Examines principal orientations, themes and debates within emergent professional geography communities in the 19th and 20th centuries and the professional structure of the field in research, educational and applied contexts. Primarily for graduate students entering geography. Mr. Turner/Offered every year

GEOG370 ANIMAL AGRICULTURE/LECTURE, DISCUSSION

Animals and humans have a long history of close association, and humans rely on animals for food, fiber, labor and companionship. Animals play an important role in efforts to increase food production and to improve diet quality in support of a growing human population. Examines terrestrial and aquatic animal systems, and the theory and practice of their intensified exploitation. Mr. Johnson/Offered every other year

GEOG373 SEMINAR IN URBAN GEOGRAPHY

In this seminar we will consider fundamental geographical aspects of urban theory. We will survey major theoretical perspectives ranging from neoclassical economics to political economy to postmodern and poststructural perspectives. The course goal is to understand the ways that scholars have approached the study of cities, and to compare and contrast the epistemological assumptions underlying different approaches to "the urban." We will critically evaluate major theoretical perspectives in light of their contribution to contemporary research: ecological theories, neoclassical theories, institutional theories, political economy approaches, and cultural studies/identity approaches. Ms. Martin/Offered every other year

GEOG373 SEMINAR IN URBAN GEOGRAPHY/ SEMINAR

Explores topics in contemporary urban geography. Prerequisite: permission of instructor. Ms. Martin/Offered every other year

GEOG389 RESEARCH THEMES IN GIS/LECTURE, DISCUSSION

Traces recent GIS history to identify major research themes. Primarily an exploration of research literature to prepare for Ph.D. oral examination in GIS. Prerequisite: permission of instructor. Mr. Eastman/Offered every year

GEOG397 ADVANCED TOPICS GIS/LECTURE, LABORATORY

Covers major research and application issues in GIS. Topics include geodesy, projections, change and time-series analysis, error sources, assessment and propagation, analysis under conditions of uncertainty, and multicriteria and objective decision making. Prerequisite: IDCE310 Introduction to GIS or permission of instructor. Mr. Eastman/Offered every year

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in one or more of the School of Geography's programs. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See Biology

BIOL216/BIOL316 Ecology

See Economics

ECON157 The Economics of Natural Resources and the Environment

See Government

GOVT157 The Politics of U.S. Environmental Issues
GOVT216 Comparative Environmental Politics
GOVT257 U.S. Social Movements and Interest Groups

See IDCE

EN120 Discovering Environmental Science
EN171 International Perspectives on Environmental Problems and Policies
EN226 The Societal Analysis and Evaluation of Environmental Hazards: Theory and Methods
EN240 Energy and the Environment
EN261/IDCE363 Decision Methods for Environmental Management and Policy
EN276/IDCE30276 Environmental Law
EN286/IDCE30286 Sustainability, Institutions and Policy Making
ID125 Tales from the Far Side: Development and Underdevelopment
ID131 Local Action, Global Change
ID190/IDCE310 Introduction to GIS
ID245/IDCE337 Culture, Politics, and International Development
ID253 Social Movements, Globalization, and the State
ID253/IDCE373 Social Movements, Globalization and the State
ID260/IDCE367 Quantitative Modeling
ID276/IDCE376 Spatial Database Development
ID296/IDCE388 GIS and Local Planning
ID297 Honors Thesis
ID299 Directed Study
IDCE349 Advanced Topics in Spatial Analysis

See Management

MGMT252/IDCE30252 Corporate Environmental Management

See Philosophy

PHIL131 Environmental Ethics
PHIL232 Case Studies in Environmental Ethics

See Scoiology

SOC265 Social Movements: Quest for Justice

GOVERNMENT AND INTERNATIONAL RELATIONS

Program Faculty

Mark C. Miller, Ph.D., *Chair*
Robert G. Boatright, Ph.D.
Brian J. Cook, Ph.D.
Beverly C. Grier, Ph.D.
Sharon P. Krefetz, Ph.D.
Paul W. Posner, Ph.D.
Srinivasan Sitaraman, Ph.D.
Valerie Sperling, Ph.D.
Kristen P. Williams, Ph.D.

Emeriti

John C. Blydenburgh, Ph.D.
Cynthia H. Enloe, Ph.D.

Adjunct Faculty

Kiran Asher, Ph.D.
Douglas J. Little, Ph.D.
Simon Payaslian, Ph.D.
Robert J.S. Ross, Ph.D.

Program Overview

The department explores some of the most important political questions that face people of all countries. Why are some governments effective and others not? What causes wars or solidifies peace? Can public policies affect relations between women and men, and between different racial groups? Most important, who decides such questions and how? The department offers courses that address these questions and others—in international relations, American politics and comparative politics. The curriculum provides theories and concepts, relevant information and tools for investigation for students to develop their own answers.

Major Requirements

The major provides a general introduction to the study of politics and an opportunity to explore one particular subfield in greater depth, allowing students to concentrate in one area of politics. The three subfields are: American politics and public policy; comparative politics; and international relations. Students must take 14 courses, with leeway choosing particular courses. Most courses are in the government department, but the few from other disciplines complement the study of politics and explore the relationships between government and other sectors of society. The 14 required courses —11 in government, one in economics, one in history and one from related disciplines—are divided into two categories.

General government requirements: seven courses, including one subfield introductory course (in addition to the introductory course in one's chosen subfield); the economics course, ECON010 A Comparative Approach; one government course in normative political theory (GOVT155, 156, 203 or 206); one course in research methods and skills, GOVT107; and three government courses from outside one's chosen subfield.

Subfield specialization requirements: seven courses, including the introductory course to one's chosen government subfield (GOVT050 Introduction to American Government, GOVT070 Introduction to Comparative Politics or GOVT069 Introduction to International Relations); four additional government courses in one's chosen subfield (one of these four must be in the form of a seminar in one's subfield, taken in the junior or senior year); and two courses, related to the subfield, from outside the government department. (A list of related courses is available from the department office; one must be in history. The other one should be chosen with one's adviser.)

Subfield Descriptions

American Politics

The American Politics and Public Policy subfield includes study of basic political and governmental institutions, major political processes, law and important patterns of political behavior. Subfield specialists become familiar with each of these three broad areas, learning how the political system operates, why public policy emphasizes particular values and allocates certain resources to different groups and individuals, and who benefits and who loses in policy outcomes in policy areas such as housing, the environment and the economy. The federal structure of American government and the diversity of the American population also require familiarity with state politics, urban and suburban politics, law and politics, and women and politics.

Comparative Politics

Comparative politics has two intertwined meanings at Clark: it means immersion in the study of politics in two or more countries outside the United States; and it means deliberately comparing important factors, such as social movements, issues or policy-making processes in two or more countries. Subfield specialists are given the chance to delve into politics experienced by elite and ordinary people inside other countries. While the United States is intentionally kept off center stage in comparative politics courses, most of them raise specific questions about American politics —its policies, experiences and assumptions—as they are seen from the vantage point of people in countries such as South Africa, Mexico or Russia. The study of comparative politics alerts the specialist to the varieties but also the surprising similarities in how power is gained, and how it is justified and wielded in different countries.

International Relations

Government majors who specialize in international relations address global politics at two intersecting levels: formal state-to-state behavior in terms of diplomacy, war and peace, intervention, law and organization; and translation of global interactions in terms of trade, development, social movements, refugees, human rights, ecology and media. Subfield specialists engage in rigorous theoretical investigations of competing analytic traditions as they attempt to explain ongoing problems of world order. Some of these problems are local, such as boundary disputes; some are regional, such as regional economic integration; and some are global, such as poverty, the greenhouse effect or militarization. Similarly, the actors in world politics are diverse: national governments, subnational governments, international organizations, private interest groups, social classes and religious movements.

General Courses

GOVT102 First-Year Seminar
GOVT107 Research Methods
GOVT155 Roots of Political Thought
GOVT156 Democratic Theory
GOVT203 Seminar: Political Theorists and Their Theories
GOVT206 Recent Political Theory
GOVT297 Senior Honors Thesis in Government and International Relations
GOVT298 Internship
GOVT299 Independent Study

American Politics and Public Policy

GOVT050 Introduction to American Government
GOVT154 The Politics of Public Policy in the United States
GOVT157 The Politics of Environmental Issues
GOVT170 American Political Thought and Behavior
GOVT171 Urban Politics: People, Power, and Conflict in U.S. Cities
GOVT172 Suburbia: People and Politics
GOVT175 Women and U.S. Politics
GOVT204 The American Presidency
GOVT205 U.S. Campaigns and Elections
GOVT209 The United States since 1968
GOVT213 Policy Analysis in the United States
GOVT215 State and Local Government and Politics
GOVT221 Urban-Policy Internship Seminar
GOVT223 Suburban Policy Issues Seminar
GOVT251 U.S. Social Movements and Interest Groups
GOVT252 U.S. Political Parties
GOVT253 U.S. Judicial Politics
GOVT255 The Politics of U.S. Congress
GOVT272 U.S. Constitutional Law: Civil Liberties

GOVT273 U.S. Constitutional Law: Governmental Powers
GOVT274 The Supreme Court in American Society
GOVT276 Environmental Law
GOVT281 Seminar: The Politics of Policy Implementation
GOVT282 Seminar: Housing and Community Development
GOVT291 Seminar: Lawyers and American Politics
GOVT293 Seminar: Constitutional Democracy
GOVT296 Seminar: Advanced Topics in American Politics

Comparative Politics

GOVT070 Introduction to Comparative Politics
GOVT103 Africa and the World
GOVT110 Introduction to Women's Studies
GOVT117 Revolution and Political Violence
GOVT125 Tales from the Far Side
GOVT136 Sub-Saharan Africa: Issues and Problems
GOVT173 Introduction to Latin-American Politics
GOVT177 Transitions to Democracy
GOVT178 South Africa: History and Contemporary Politics
GOVT179 Comparative Foreign Policy
GOVT186 Upheaval in Eastern Europe
GOVT208 Comparative Politics of Women
GOVT210 Violence in the Middle East
GOVT212 Politics, Culture and Society in Latin America
GOVT214 Mass Murder and Genocide Under Communism
GOVT216 Comparative Environmental Politics
GOVT218 Seminar: Child Labor and the State: Comparative Perspective
GOVT219 Seminar: Politics and Development of Southern Africa
GOVT227 Global Politics of Development
GOVT228 Comparative Politics of Race, Ethnicity and Gender
GOVT230 Armenian Genocide
GOVT232 Politics and Religion in the Balkans
GOVT233 State Building in the Middle East and the Balkans
GOVT256 Corruption, Crime and Chaos in Contemporary Russia
GOVT257 Comparative Courts and Laws
GOVT275 Seminar: Gender Politics and Development in Africa
GOVT286 Seminar: Advanced Topics in Comparative Politics
GOVT290 Seminar: Inter-American Relations
GOVT293 Seminar: Constitutional Democracy

International Relations

GOVT069 Introduction to International Relations
GOVT103 Africa and the World
GOVT146 The U.N. and International Law
GOVT147 World Order and Globalization
GOVT179 Comparative Foreign Policy
GOVT192 Asian Political Economy
GOVT211 International Cooperation
GOVT226 International Political Economy
GOVT238 U.S. Foreign Policy 1914
GOVT240 Human Rights and International Politics
GOVT241 History of Human Rights
GOVT242 Human Rights and Transitional Justice
GOVT245 Americans, Israelis and Arabs
GOVT246 The United States and the Persian Gulf
GOVT247 Seminar in Global Capitalism
GOVT250 U.S. National Security
GOVT280 Super Power Surrendering? Russia and the World
GOVT284 The Viet Nam War
GOVT285 Seminar: Special Topics in Peace Studies
GOVT289 Seminar: Advanced Topics in International Relations

Honors Program

Juniors with strong academic records may apply to the honors program, which expands research and writing skills through an in-depth systematic analysis of one specific topic. Students can achieve honors by successfully completing the honors program, which involves researching, writing and defending a senior thesis.
Interested students should obtain guidelines in the department office and must submit applications by March 15 of the junior year.

Government and International Relations Minor

The government minor requires a minimum of six courses within the department. One must be an introductory course (GOVT050, 069 or 070); one must be either in political theory (GOVT155, 156, 203 or 206) or in research methods (GOVT107); and four others can be in any assortment of subfield areas (including two at the 200 level). An internship supervised by a government faculty member, as well as approved political-science courses taken as part of an accredited study-abroad program, may count toward the minor.

Internships and Study Abroad

Internships in American local, state and federal government agencies, independent public interest groups, private law firms and companies can earn students government major credit. Study abroad may also fulfill major requirements. To receive government major or minor credit, a student must work with his or her faculty adviser or another faculty member in the department.

Nonmajor Concentration

Certain fields of study can be taken as concentrations in addition to and complementary to the government major. Some concentration requirements may also fulfill government-major requirements. (See specific catalog sections on these concentrations.)

Student Handbook

The government department publishes a handbook, which has a more extensive description of major requirements, programs, courses and faculty, as well as other information relevant to the major. Copies are available in the department office.

Courses

GOVT050 INTRODUCTION TO AMERICAN GOVERNMENT/LECTURE, DISCUSSION

Introduces the American governmental system. Overviews contemporary structure, operation and performance of national institutions, including the courts. Addresses American political culture, voting and elections, the evolution of federalism, law and politics, and important public issues, such as civil rights, civil liberties and economic change. Mr. Cook, Mr. Miller/Offered every year

GOVT069 INTRODUCTION TO INTERNATIONAL RELATIONS/LECTURE, DISCUSSION

Introduces basic concepts of international relations, e.g., the balance of power, and broader alternative perspectives by which security can be viewed. Explores: the development of the nation's state system, World War I, World War II, the Cold War, the Post-Cold War period and issues such as human rights, environment, gender, war and economics. Ms. Williams, Mr. Sitaraman/Offered every year

GOVT070 INTRODUCTION TO COMPARATIVE POLITICS/LECTURE, DISCUSSION

The study of comparative politics is based upon the premise that we can better understand domestic political dynamics and political phenomena in general by comparing political conditions across and within (subnational units) countries. Specifically, comparative politics investigates the following types of questions: In what ways do groups and individuals participate in politics? Why have some countries developed stable democratic political systems, while others remain authoritarian or experience frequent changes in government? What relationship does a country's political organization have with its economic performance, social stability and relations with other countries? In exploring these questions, we will compare both developed and developing countries in terms of political institutions (constitutions, executives, legislatures, courts and political parties), political behavior (voting and collective action), political culture and political economy. Mr. Posner/Offered every year

GOVT080 MODEL UNITED NATIONS PROGRAM

The Model United Nations (MUN) Program is a realistic simulation of the activities of ambassadors and representatives of different member nations who serve in various agencies of the United Nations. Students assume the role of ambassadors or special U.N. representatives. They participate in live simulations of the U.N. Security Council, Economic Social and Cultural Council, and Special Middle East Summit. Students participate in the Harvard Model U.N. Conference every year. During this conference Clark students known as delegates enter the world of diplomacy, negotiation and high politics as they grapple with complex realities of peace and security, human rights, women's rights and economic development, and they pit their skills against delegates from other universities representing different countries. Delegates prepare by thoroughly researching policy positions of countries they are representing and contribute to a lively exchange of ideas and simulate an authentic environment that parallels U.N. meetings. This active-learning experience complements classroom learning and prepares Clark students to enter a professional career in government, international organizations or the academe. Repeat registration allowed. Mr. Sitaraman/Offered every year.

GOVT102 FIRST-YEAR SEMINAR

Topics vary.

GOVT103 AFRICA AND THE WORLD/LECTURE, DISCUSSION

Examines the historical and contemporary relationships of sub-Saharan Africa and Europe, the United States, the Middle East and parts of Asia, and Latin America. The course explores issues such as global involvement in Africa's civil wars, genocide in Rowanda, Islamic fundamentalism, the role of the World Bank and International Monetary Fund in Africa's development, and the impact of the HIV/AIDS pandemic. The role of the United Nations and nongovernmental organizations in development, conflict and humanitarian concerns is also explored. Ms. Grier/Offered every other year

GOVT107 RESEARCH METHODS/LECTURE, DISCUSSION

Considers the logic of the research process, from formulating and stating testable hypotheses and operationalizing concepts to collecting and analyzing appropriate data. Explores both concepts and techniques, including statistical analysis. Students design research projects independently or in teams, and analyze data. Mr. Cook, Ms. Krefetz/Offered every semester

GOVT110 INTRODUCTION TO WOMEN'S STUDIES/LECTURE, DISCUSSION

Provides a broad, global overview of women's studies, its questions, its findings, considering women's experiences and roles in different generations and sociocultural communities.
Ms. Sperling/Offered every other year.

GOVT117 REVOLUTION AND POLITICAL VIOLENCE/LECTURE, DISCUSSION

Analyzes the concept, the causes and process of revolution. Is revolution inevitable? How does it differ from terrorism, guerrilla warfare or coups? This course examines the Russian and Chinese revolutions as 20th-century prototypes; comparisons are then drawn to more recent revolutions in Eastern Europe, the Middle East, Latin America and South Africa.
Ms. Sperling/Offered every year

GOVT136 SUB-SAHARAN AFRICA: ISSUES AND PROBLEMS/LECTURE, DISCUSSION

Explores issues and problems confronting sub-Saharan Africa, including the legacy of colonialism, the establishment of nation-states, and the role of parties and the military in the politics of selected countries. Examines women's roles, class conflict, alternative development strategies, the environment, regional conflicts and the global economy. Ms. Grier/Offered every other year

GOVT146 The United Nations and International Law

The objective of this course is to develop a solid understanding of how the United Nations has evolved: What are its organizational structures? Who are the major actors? What are its structures and processes? In conjunction, this course also analyzes the concept and bases of international law. Namely, how international law sets the general procedures and develops institutions for the conduct of international relations. The course also provides needed background for the Model U.N. program. Mr. Sitaraman/Offered every year.

GOVT147 World Order and Globalization/ Discussion

Explores the ways in which states have attempted to establish order in an anarchical international system. An overriding challenge to the existing world order, particularly in the post-Cold War period, comes from globalization (economic, political, social issues). Is globalization leading toward a single system of values, or fragmenting into incompatible pockets of pluralist identities? Ms. Williams/Offered every year

GOVT154 The Politics of Public Policy in the United States/Lecture, Discussion

Where do policy ideas originate? How do coalitions form in support or opposition to a policy? Do the dynamics of policy making vary across issues? Focuses on understanding public-policy development and implementation at the national level in the United States, including why some policies fail to develop or why they fail to take effect as intended. Includes assessment of prominent theories of policy development and in-depth analysis of cases. GOVT050 strongly recommended. Mr. Cook/Offered every other year.

GOVT155 Roots of Political Thought/ Lecture, Discussion

Western political thought from the classic Greek period to early modern liberalism and socialism is analyzed through contributions by major thinkers: Plato, Aristotle, Machiavelli, Hobbes, Locke, Rousseau and Marx. Mr. Boatright/Offered every year

GOVT156 Introduction to Democratic Theory/Lecture, Discussion

This course fulfills the political-theory requirement for the government department. It traces the development of democratic theory from its origins in ancient Athens to the present day. We will examine how diverse conceptualizations of democracy address key issues in democratic theory and practice, including the constitution of liberty, equality and political authority; the definition and actualization of citizenship; the proper relationship between the individual and the state; the proper balance between majority and minority rights; and the best means for citizens to participate in democratic government. We will consider each of these key issues through our reading of influential works in the development of democratic theory and our active discussion of these works. This reading and discussion will enable us to broaden both our understanding of the democracy in which we live and our role as citizens within it. Mr. Posner/Offered every other year

GOVT157 The Politics of U.S. Environmental Issues/Lecture, Discussion

Why have environmental policies emerged or failed to emerge? What is distinctive about the politics of environmental issues? Primary focus is national environmental politics and policy making in the United States. Examines the character of policy action, public ideas, political leadership and institutional development across several prominent environmental issues. Assignments emphasize class discussion, oral presentations, group simulations and short written analyses. GOVT050 strongly recommended. Mr. Cook/Offered every other year.

GOVT170 American Political Thought and Behavior/Lecture, Discussion

Explores factors that have shaped a distinctive American political culture—our shared values, beliefs, attitudes and expectations of government. Considers how this culture is transmitted through the process of political socialization, in which our political orientations and behavioral predispositions are formed. Examines how political culture and socialization are connected to contemporary political attitudes and behavior. Ms. Krefetz/Offered periodically

GOVT171 URBAN POLITICS: PEOPLE, POWER AND CONFLICT IN U.S. CITIES/LECTURE, DISCUSSION

Focuses on the major socioeconomic and political forces that affect city politics in the United States. Topics include: the growth and decline of the cities; fiscal constraints; federal and state urban policies; political machines; reforms; the Post-Reform Era; the community power debate; regimes and coalition building; and efforts by African-Americans and Latinos to gain political incorporation. Ms. Krefetz /Offered every year

GOVT172 SUBURBIA: PEOPLE AND POLITICS/ LECTURE, DISCUSSION

Focuses on the causes and consequences of the rapid growth of suburbs in the United States after World War II, impact on the nature of metropolitan areas. What are the characteristics of the people who live in suburbs? Is suburban homogeneity a myth or reality? How are suburbs governed? What is suburban political participation like? What are the patterns of policy making on issues such as education, zoning, and property taxes? Ms. Krefetz/Offered periodically.

GOVT173 INTRODUCTION TO LATIN-AMERICAN POLITICS/LECTURE, DISCUSSION

As an introduction to the study of Latin-American politics, this course demands no prerequisites except a basic curiosity about the region and a desire to learn about its development over the past century. In an effort to understand contemporary politics in the region, we consider alternative theoretical explanations for patterns of development as well as analyze the historical role played by influential political actors, including the Church, the military, economic elites, workers and peasants. Some of the fundamental questions we will be asking include: What is the relationship between a country's social and economic conditions and its political system? Why have so many Latin-American nations alternated between democratic and authoritarian regimes? What is the relationship between Latin America and the so-called "First World," particularly the United States? In attempts to answer these questions, the course will examine the political systems of Argentina, Brazil, Chile, Mexico and Guatemala. Mr. Posner/ Offered every other year

GOVT175 WOMEN AND U.S. POLITICS/LECTURE, DISCUSSION

Explores the political attitudes, behavior and status of women in the United States. Views on the nature of women and their "proper" role in society and the state, set forth by classical political philosophers in ancient times, are contrasted with ideas introduced by women's-rights theorists, beginning in the 18th century. Focus is on contemporary U.S. politics, including gender differences in political socialization and political participation, the gender gap in voting preferences, women as politicians and bureaucrats, and the influence of women on public policies. Ms. Krefetz/Offered every year

GOVT177 TRANSITIONS TO DEMOCRACY/ LECTURE, DISCUSSION

How can a dictatorship become a democracy? What challenges face countries emerging from repressive rule? Using first-hand accounts, historical analyses and contemporary films, this course explores the role of grassroots movements, elites and the international context in struggles to create and sustain democracy. The focus will be on transitions from totalitarian and authoritarian regimes in Europe and military dictatorships in Latin America.
Mr. Posner, Ms. Sperling/Offered every other year

GOVT178 SOUTH AFRICA: HISTORY AND CONTEMPORARY POLITICS/LECTURE, DISCUSSION

Acquaints students with the forces that have shaped the political system of contemporary South Africa. Examines colonialism, apartheid, African nationalism and the antiapartheid struggle, the role of African women, politics since the election of Mandela, South Africa's economic and political role in the southern Africa region, and Western involvement in the country during apartheid and postapartheid eras. Ms. Grier/Offered every other year

GOVT179 COMPARATIVE FOREIGN POLICY/LECTURE, DISCUSSION

Explores forces that influence the formulation and execution of foreign policy. Is it international setting or domestic factors which determine foreign policy? What are options and constraints in devising a foreign policy in the post-Cold War era? Exploits the foreign policy-making process in various countries, including Europe and Eurasia. Staff/Offered periodically

GOVT186 UPHEAVAL IN EASTERN EUROPE/LECTURE, DISCUSSION

Within a dramatic and short space of time, Eastern Europe was transformed from a homogenized communist bloc to a region brimming with diversity, complexity, and unfulfilled potential. The course examines the transformations ranging from Stalinism to pluralism. Why did the revolutions of 1989 occur? What are the difficulties in transition to market economies and democracy? Ms. Sperling/Offered periodically

GOVT192 POLITICAL ECONOMY OF ASIA

This course is an introduction to the political economy of Asia. Primarily the course will focus on the economies of East and Southeast Asia, and to some extent on India. In the past few decades the Asian economies have grown at a rapid pace and performed exceedingly well relative to the economies of other developing countries. We will rely on comparative-historical analysis, economic history, and analytical tools used by economists and political scientists to examine the reasons behind the explosive growth in Asian economies. In addition, we will also analyze the role of the state in promoting economic growth and accelerating Asia's global integration. Mr. Sitaraman/Offered periodically.

GOVT201 THE HIV/AIDS CRISIS IN AFRICA

The course acquaints students with the complex economic, social and political forces that shape the HIV/AIDS pandemic in sub-Saharan Africa. It explores the reasons for Africa's high prevalence rates, the gendered nature of the pandemic, the impact of HIV/AIDS on children and on development, the responses of African governments and nongovernmental organizations, and the politics of prevention and treatment, including the politics of global pharmaceutical drug pricing. Ms. Grier/Offered periodically.

GOVT203 POLITICAL THEORISTS AND THEIR THEORIES/SEMINAR

Focuses on one or two people whose theories have influenced ideas about power, governing, liberty, equality and justice. Explores their lives and the societies and events that shaped their ideas. Theorists who have been featured include Hannah Arendt, Alexis de Tocqueville, Erich Fromm and Karl Marx. Staff/Offered periodically

GOVT204 THE AMERICAN PRESIDENCY/LECTURE, DISCUSSION

Examines the president's changing role in American politics, evolution of the modern presidency, selection and nomination process, relationships with other political institutions and presidential character. Explores proposed reforms for the future. Prerequisite: GOVT050 or permission of instructor. Mr. Cook/Offered every other year

GOVT205 U.S. CAMPAIGNS AND ELECTIONS/LECTURE, DISCUSSION

Examines election and campaigns from a number of different perspectives: the theoretical underpinnings of American elections, their historical development, the rules by which campaigns are governed, and the strategies that candidates follow in pursuit of office. Although the focus is almost exclusively on national (presidential and congressional) elections, it is the goal of the course to examine the process of elections from a standpoint that will enable students to understand and analyze the electoral process at various levels of government. The primary system, the role of the media, and the issue of campaign finance, among other topics, are also explored. Mr. Boatright/Offered periodically

GOVT206 RECENT POLITICAL THEORY/LECTURE, DISCUSSION

Examines a central normative category of modern democracy from a number of different perspectives: historical development of a distinctly modern public sphere, the liberal and civic republican accounts of the public sphere, and feminist and postmodern critiques.
Mr. Boatright/Offered every other year

GOVT208/IDCE308 COMPARATIVE POLITICS OF WOMEN/LECTURE, DISCUSSION

Explores the roles, priorities, strategies and theories of women in the politics of industrialized and developing countries. Causes for changes or lack of genuine changes in women's political influence are investigated to shed new light on those countries' political systems. Discusses the politics of democratization, sexuality, labor and cross-race alliances. One or more previous courses in government or in women's studies is strongly advised. Staff/Offered every other year

GOVT210 VIOLENCE: THE CASE OF THE MIDDLE EAST/LECTURE, DISCUSSION

Religious affiliation and the infusion of its absolutist perspectives with the tenets of the nation-state have created societies in the Middle East away from the secularized and inclusive models creating increasing possibilities of extreme participation. Studying these issues within the Middle East allows us the additional benefit of current events, but it will provide a window to other areas and levels of politics where violence is equally prevalent.
Staff/Offered periodically

GOVT211 INTERNATIONAL COOPERATION

This course is designed to address the question of how nation-states cooperate under the condition of international anarchy. The course will begin by examining the theoretical problem of international cooperation. Then we will study how states overcome the cooperation dilemma, and how formal and informal institutions reduce uncertainty, risk and facilitate reciprocity and enable international cooperation. Importantly, we are interested in studying how institutions are constituted and established, and how institutions evolve over time; what effects they have on states; and how they influence domestic and international policies of a state. Primarily the course will focus on analyzing competing perspectives on international cooperation, then shift into studying how institutions address the cooperation problematique, and conclude by examining the implications of rapid proliferation of international institutions for nation-states, and international relations theory. Prerequisite: Introduction to International Relations or permission of instructor. Mr. Sitaraman/Offered every other year.

GOVT212 POLITICS, CULTURE AND SOCIETY IN LATIN AMERICA/LECTURE, DISCUSSION

Provides an overview of the key economic and political issues confronting Latin America today: economic development and social inequality, international debt, the breakdown of democracies as well as transitions from authoritarian rule, revolutions, and the role of working-class, women's, peasant and ethnic movement. Draws on the analytical perspectives of the political economy and cultural politics to develop a nuanced and self-reflexive understanding of the complex realities of Latin-American politics. Ms. Asher,
Mr. Posner/Offered periodically

GOVT213 POLICY ANALYSIS/LECTURE, DISCUSSION

How can society better determine what public problems exist? What policies will respond best to those problems? What impacts have public policies had? These are the questions that animate the policy analysis enterprise, which aims to improve public decision making. Introduces the structure, methods and subject matter of the field, helps students sharpen their analytic skills and explores several important public-policy issues. Students present and discuss concepts and methods and engage in an intense analysis simulation. Prerequisite: GOVT107 or other social-science methods course, or permission of instructor. Limited to juniors and seniors. Mr. Cook/Offered every other year

GOVT214 MASS MURDER AND GENOCIDE UNDER COMMUNISM/LECTURE, DISCUSSION

Is communism inherently genocidal? Do communism and mass murder necessarily go hand in hand? This course explores the origins, motivations and consequences of the brutal and deadly policies adopted in three very different communist regimes (the Soviet Union, China and Cambodia). We will also consider potential ways to avert mass killing and genocide. Ms. Sperling/Offered every year.

GOVT215 STATE AND LOCAL GOVERNMENT AND POLITICS/LECTURE, DISCUSSION

Overviews the operation of state and local governments, explaining distinctive features of states in terms of their individual political, economic, historical, legal and demographic characteristics. Focuses on how these features explain state political systems in the present and how they are likely to shape the states of the future. Focuses on Massachusetts and other Northeastern states. Prerequisite: GOVT050. Staff/Offered periodically

GOVT216 COMPARATIVE ENVIRONMENTAL POLITICS/LECTURE, DISCUSSION

Over the course of the past several decades environmental degradation and sustainability have assumed major significance as public-policy issues, both within nations and internationally. However, given the transnational nature of many environmental problems, addressing such problems has proven to be particularly complex and difficult. This course examines the complex nature of environmental policy from both an international and comparative perspective. We will examine the specific challenges that the international nature of environmental problems poses for policy makers. We will also compare different national experiences and strategies for addressing environmental issues with an eye toward identifying the factors, which impede or facilitate success in promoting effective environmental policy. Mr. Posner/Offered every other year

GOVT218/IDCE320 CHILD LABOR GLOBALIZATION/SEMINAR

This course raises and attempts to answer a number of questions. Is globalization good or bad for child labor? Or is the record mixed? Taking a comparative perspective, the course looks at different forms of child labor in a number of developing countries, from carpet weaving in Iran, prostitution in the Philippines, and child soldiering in Liberia to factory work in Mexico and to plantation agriculture in Brazil and South Africa. It seeks to determine the impact of global trade, new communications and information technologies, World Bank and International Monetary Fund policies, and the rise of nonstate actors on child labor; and explore the role of states in an increasingly globalized political economy. Ms. Grier/Offered every other year.

GOVT219/IDCE319 POLITICS AND DEVELOPMENT IN SOUTHERN AFRICA/SEMINAR

Explores in a comparative way various issues in the politics and development of the Southern Africa region: race, class, gender, ethnicity, democratization, land reform, labor migration, the HIV/AIDS pandemic, the environment, child labor, the World Bank and the role and effectiveness of the Southern African Development Community. The countries covered include: South Africa, Lesotho, Swaziland, Botswana, Namibia, Zimbabwe and Mozambique. Ms. Grier/Offered every other year

GOVT221 URBAN POLICY/SEMINAR AND INTERNSHIP

Focuses on how cities make and implement policies and deliver services, exploring especially downtown redevelopment, neighborhood revitalization and housing policies. Students intern at a Worcester redevelopment, housing or other policy-making organization. Students discuss course readings and share experiences, combining perspectives of scholars and practitioners. GOVT220 or permission of the instructor is required. Limited to 12 students, with preference given to juniors and seniors. Ms. Krefetz/Offered every other year

GOVT223 SUBURBAN POLICY ISSUES/SEMINAR

Explores politics and policy making in suburban communities, especially zoning and land use, education and property taxes. Students conduct original research in suburbs of Worcester and Boston. Prerequisite: GOVT172 or permission of instructor. Ms. Krefetz/ Offered periodically

GOVT226/IDCE30253 INTERNATIONAL POLITICAL ECONOMY

Focuses on political determinants of international trade and finance, and to a lesser extent, it is also about the economic determinants of international politics. In this course, we will learn how the international economic system has evolved and examine how we arrived at this pivotal juncture called the "global political economy." We will study how the international political mechanism and historical forces led to the acceptance of certain economic models, theories and ideas. Particularly, the focus will be on actual international economic processes, their inner workings and interlinkages. We will analyze how domestic political alignments influence a country's trade and tariff policies. Why do some countries make decisions that seem to defy conventional economic logic? Why do some countries choose to trade more and why do some countries choose to restrict international trade? More importantly, in this course we will try and unravel the mysteries behind the "international market system." How does it work? And what are its benefits and consequences? Mr. Sitaraman/offered every other year.

GOVT227/IDCE326 GLOBAL POLITICS OF DEVELOPMENT/LECTURE, DISCUSSION

Expands the boundaries of development studies beyond local- or national-level phenomenon, to explore a key dimension of contemporary world politics. Extends the basic historical political economy framework, developed in GOVT145, to deal in greater depth with the ideas, interests and institutions that comprise the international development "regime." Staff/Offered periodically

GOVT228/IDCE327 COMPARATIVE POLITICS OF RACE, ETHNICITY AND GENDER/LECTURE, DISCUSSION

Explores politics of ethnicity and race for groups as different as Asian-Americans, black Britons, Latin-American Indians, Bosnians and others. Investigates government policies and popular movements. Explores the political implications of ideas about masculinity and femininity for race, ethnicity and state power. Previous study of international development, comparative politics, history, sociology or women's studies recommended. Staff/Offered every other year

GOVT230 THE ARMENIAN GENOCIDE/LECTURE, DISCUSSION

Examines the various dimensions of the Armenian Genocide, through scholarly analyses, survivor narratives, journalistic accounts and other sources. Through the course, students develop a detailed understanding of the actual events of the genocide, its social and political causes, and its immediate and long-term impact on individual Armenians and the Armenian nation, generally. Students will also treat in-depth the initial external response to the genocide, its political and legal aftermath, and the significant effort still made by the Turkish successor state to deny that the genocide occurred. Mr. Payaslian/Offered periodically

GOVT232 RELIGION AND POLITICS OF THE BALKANS/LECTURE, DISCUSSION

Examines the political development of the Balkans as a region and specifically looks at three distinct transitions toward liberal democracy in the post-Soviet era in the countries of Greece, Yugoslavia and Turkey. Because religion has played a key political role in the region, the course will also examine the area's distinct religious, cultural and ethnonational identity formations arising during the 19th and 20th centuries when the region was part of the Ottoman Empire. Staff/Offered periodically

GOVT233/IDCE30295 STATE BUILDING IN THE MIDDLE EAST AND THE BALKANS/LECTURE, DISCUSSION

This course compares state building efforts in five countries in the Middle East and the Balkans: Iran, Israel, Egypt, Greece and Turkey. Staff/offered periodically

GOVT240/IDCE340 HUMAN RIGHTS AND INTERNATIONAL POLITICS/LECTURE, DISCUSSION

In recent years, questions of human rights and humanitarian concerns have been central to debates on such varied issues as U.S. relations with China, NATO's role in the former Yugoslavia, and the United Nation's place in the international system. The more general question of whether foreign policy should be based strictly on national interests or also include moral considerations has been long-standing, but it is particularly relevant in a post-Cold War world where national interests and priorities are less clear. Appeals to students interested in learning more about current policy disputes and in further exploring the impact of ideas in international politics. Staff/Offered periodically

GOVT245 AMERICANS, ISRAELIS AND ARABS/ LECTURE, DISCUSSION

Studies U.S. foreign policy and diplomacy towards Israel and the Arab countries of the Eastern Mediterranean, including the Arab-Israeli peace process. After a brief introductory section, the course focuses on events in the region since the end of World War II. Staff/ Offered periodically

GOVT246 THE UNITED STATES AND THE PERSIAN GULF/LECTURE, DISCUSSION

After a brief introductory section on the history and geography of the region and U.S. interests in the area, this course will focus on U.S. relations with Iran, Iraq and the Arabian peninsula since the end of World War II. Topics to be discussed include the U.S. role in the development of Middle Eastern oil, particularly in Saudi Arabia; the collapse of the Shah and the crisis in our relations with Iran; and "Desert Shield," "Desert Storm" and U.S. efforts to get rid of Saddam Hussein. The goal is to give students an understanding of what happened, and why. Staff/Offered periodically

GOVT250 U.S. NATIONAL SECURITY/LECTURE, DISCUSSION

Explores domestic and international politics of American national security policy, including the use of force, arms control and diplomacy. Examines the historical background and principal policy-making institutions in security policy particularly the gap between civilians and the military. Case studies focus on the Vietnam War, the Persian Gulf War and Bosnia.
Ms. Williams/Offered every year

GOVT251 U.S. SOCIAL MOVEMENTS AND INTEREST GROUPS/LECTURE, DISCUSSION

Examines the strategies of social movements and interest groups for mobilizing resources and lobbying the state. Considers theoretical frameworks used to study mobilization and action, including the pluralist, power elite and "cycle" theories for interest groups, and collective action, resource mobilization, and political process models of social movements.
Mr. Boatright/Offered periodically

GOVT252 U.S. POLITICAL PARTIES/LECTURE, DISCUSSION

Examines historical development of the party system in the United States and the structures and activities of the two major parties. Examines historical successes and failures of various types of third parties and comparative analysis with parties in other advanced democracies. Prerequisite: GOVT050 or permission of instructor. Mr. Boatright, Mr. Cook/Offered periodically

GOVT253 U.S. JUDICIAL POLITICS/LECTURE, DISCUSSION

Explores the relationships between the courts and other sectors of the American political system. Studies how judges are selected, how courts handle civil and criminal cases, judicial policy making, and how interest groups use the courts. Mr. Miller/Offered every other year

GOVT255 THE POLITICS OF U.S. CONGRESS/ LECTURE, DISCUSSION

Examines contemporary politics of the U.S. Congress from individual and institutional perspectives. Includes Congressional elections, differing views of representation, House-Senate differences, Congressional policy making, relationships between Congress and the courts, the presidency, the bureaucracy and interest groups, and the future of the institution. GOVT050 is highly recommended. Mr. Miller/ Offered every other year

GOVT256 CORRUPTION, CRIME AND CHAOS IN CONTEMPORARY RUSSIA

Explores Russia's current challenges, including the difficulty of changing a communist party-run dictatorship into a democracy, transforming a socialist economy into a capitalist one and handling the rise of nationalism and separatism within its own borders. Coverage of the Soviet Union, from its creation in 1917 to its collapse in 1991, is included. Ms. Sperling/ Offered every other year

GOVT257 COMPARATIVE COURTS AND LAW/ LECTURE, DISCUSSION

Examines the court systems, legal systems and role of the legal profession in various North American and Western European countries, including Canada, the United States, the United Kingdom, France, Luxembourgh and Germany. Comparisons include the concepts of judicial review, constitutionalism and the role of the courts in the broader governmental system. The course will also explore how the European Union and the Canadian Supreme Court will integrate the legal system from both the Common Law and Civil Law legal traditions. Mr. Miller/Offered every other year

GOVT272 U.S. CONSTITUTIONAL LAW: CIVIL LIBERTIES/LECTURE, DISCUSSION

Focuses on the historic and contemporary role of the U.S. Supreme Court in interpreting the U.S. Constitution. Includes cases dealing with freedom of religion and speech, privacy, discrimination and equal protection. Students may take GOVT272 and 273 in any order. Mr. Miller/Offered every other year

GOVT273 U.S. CONSTITUTIONAL LAW: GOVERNMENTAL POWERS/LECTURE, DISCUSSION

Focuses on the historic and contemporary role of the U.S. Supreme Court in interpreting the U.S. Constitution. Includes cases dealing with powers of Congress and the President, federalism and economic rights. Students may take GOVT272 and 273 in any order. Mr. Miller/ Offered every other year

GOVT274 THE SUPREME COURT IN AMERICAN SOCIETY/LECTURE, DISCUSSION

Examines various aspects of the role that the Supreme Court of the United States plays in our system of government and in our broader social order. Examines various topics, such as the role of the Court in producing social change, the jurisprudence of individual justices, and recent trends in the Court's decisions on federalism, administrative law and statutory interpretation. Also explores the aftermath of the Court's decision in Bush v. Gore. Mr. Miller/Offered periodically

GOVT275 GENDER, POLITICS AND DEVELOPMENT IN AFRICA/SEMINAR

The course examines a range of issues involving questions of gender, politics and development, including gendered political participation at the local and national levels, gendered rights under customary and introduced law, and the role and impact of gender on civil conflict, war and genocide. The course also explores the role of gender in the HIV/AIDS crisis, Structural Adjustment Programs, Islamic Shariah law and female genital cutting. Ms. Grier/Offered periodically.

GOVT280 SUPERPOWER SURRENDERING? RUSSIA AND THE WORLD/LECTURE, DISCUSSION

Studies Soviet foreign policy from the country's uncertain beginnings as the first Marxist state to its dominant position as a superpower and its recent dissolution and collapse. Considers problems, goals and trends of successive phases of Soviet foreign policy. Examines efforts of successor states, especially Russia and the Ukraine, to devise viable foreign-policy strategies in the aftermath of the disintegration of the USSR. Ms. Sperling/Offered periodically

GOVT281 THE POLITICS OF POLICY IMPLEMENTATION/SEMINAR

Explores, in-depth, the philosophical, legal, political and organizational challenges of implementing public policy and enforcing public law. Focuses specifically on the political and managerial challenges administrative agencies face. Students confront implementation dilemmas through case studies and research on agencies and policies. Prerequisite: GOVT154 or permission of instructor. Mr. Cook/Offered every other year

GOVT282 HOUSING POLICIES AND POLITICS/SEMINAR

Focuses on social, economic and political factors that shape the federal government's housing policies and their implementation by local governments in metropolitan areas of the United States. Explores the myths and realities of public housing, urban renewal, gentrification, linkage, homelessness, redlining, exclusionary zoning, and racial and gender discrimination in housing. Ms. Krefetz/Offered every other year

GOVT286/IDCE386 ADVANCED TOPICS IN COMPARATIVE POLITICS/SEMINAR

Focus changes each year depending on faculty interest. Has focused on "International Feminist Thinking" and "Politics of Nationalism." Open to juniors, seniors and graduate students. Can be taken twice. Mr. Posner, Ms. Grier, Ms. Sperling/Offered every year

GOVT289 ADVANCED TOPICS IN INTERNATIONAL RELATIONS/SEMINAR

Focuses on historical-theoretical approaches to, and problems in global politics. Topic varies each year. Substantial (20-30 page) research paper required. Generally restricted to junior and senior international relations majors; others may be admitted with permission of the instructor. Ms. Williams, Mr. Sitaraman, Mr. Little/Offered every year

GOVT290 INTER-AMERICAN RELATIONS/SEMINAR

This course examines the historical and contemporary relations between the United States and Latin-American countries. After a brief historical overview of U.S. foreign policy toward Latin America, we will explore various themes central to U.S.-Latin American relations. Topics include the impact of U.S. hegemonic rule; revolutionary challenges to U.S. hegemony; economic relations, including Dollar Diplomacy and NAFTA; defending national security, democracy and human rights; the "war on drugs"; and the Latin Americanization of the United States. While we will seek a deeper understanding of common patterns in U.S.-Latin American relations, the course will also emphasize the uniqueness of national experiences. Mr. Posner/Offered every other year

GOVT291 LAWYERS AND POLITICS/SEMINAR

Examines the role played by lawyers in American politics. Topics include lawyers in private practice, lawyers in legislatures, lawyers as judges, lawyers as lobbyists, government-agency lawyers and academic lawyers. Mr. Miller/Offered every other year

GOVT293 CONSTITUTIONAL DEMOCRACY/SEMINAR

Writing a constitution means creating a people. It is at once a very conservative and a very daring undertaking. It is also the most fundamental of political acts. What considerations are within the purview of the constitution maker? What consequences follow from founding choices? Through analyses of the constitutions and constitutional foundings of the United States, India and South Africa, and through original student research, we will confront these questions and the complexities of blending constitutionalism and democracy. Prerequisites: GOVT050, or permission of instructor. Limited to juniors and seniors. Mr. Cook/Offered periodically

GOVT296 Advanced Topics in American Politics/Seminar

Focus changes with each offering, depending on faculty interest. A past topic was "Politics of Rich and Poor." Open to juniors and seniors.
Staff/Offered periodically

GOVT297 Honor Thesis

GOVT298 Internship

GOVT299 Independent Study

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in Government and International Relations. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See IDCE

EN276/IDCE30276 Environmental Law
ID125 Tales from the Far Side: Development and Underdevelopment

See History

HIST209/HIST309 America in Our Time: The United States Since 1968
HIST238/HIST338 U.S. Foreign Policy
HIST241/HIST341 History of International Human Rights
HIST286/HIST386 The Vietnam War

See Peace Studies

PSTD285/PSTD290 Special Topics in Peace Studies

See Sociology

SOC242 Human Rights and Transitional Justice
SOC288/IDCE347 Globalization: Fashion and Foul Play

HISTORY

Program Faculty

Janette T. Greenwood, Ph.D., *Chair*
Debórah Dwork, Ph.D.
Willem Klooster, Ph.D.
Thomas Kühne, Ph.D.
Douglas Little, Ph.D.
Drew McCoy, Ph.D.
Simon Payaslian, Ph.D.
Amy Richter, Ph.D.
Paul Ropp, Ph.D.

Affiliate and Adjunct Faculty

John C. Brown, Ph.D.
Paul Burke Jr., Ph.D.
Robert Dykstra, Ph.D.
Richard B. Ford, Ph.D.
Everett Fox, Ph.D.
Beverly C. Grier, Ph.D.
George M. Lane, M.A.
Jack Larkin, M.A.
Thomas P. Massey, Ph.D.
Diane Roazen, Ph.D.
Alden Vaughan, Ph.D.

Emeriti

George A. Billias, Ph.D.
Daniel R. Borg, Ph.D.
Paul Lucas, Ph.D.

Program Overview

The History Department offers a traditional major, minor and elective courses for nonmajors. Undergraduate majors must choose one of three areas of geographic specialization-United States, European or global history. These specializations may be linked to course work in interdisciplinary concentrations such as Asian studies, Holocaust studies or women's studies. The History Department also offers a general track within the major for those seeking certification in elementary education.

The major exposes students to different fields of knowledge, offering training in critical thinking; the accumulation, organization and analysis of information; and clear and concise writing. The major provides an excellent background for graduate school, teaching, careers in law, government, journalism, international affairs, museum, library and archival work, and business. With courses on every major geographical area of the world, and with conceptual approaches ranging from political and diplomatic to social, intellectual and cultural, the History Department offers a rich and diverse curriculum.

The department also participates in Clark's Higgins School of Humanities, allowing students to enjoy the support and benefits of the school.

Major Requirements

All history majors must take 10 history courses and two related nonhistory courses distributed as follows:

1. HIST120 Writing History, preferably before the junior year.
2. Five courses inside their geographic area of specialization. Of these five courses, at least three must be at the 200 level and at least one must be a seminar or a proseminar.
3. At least one course in each of the two geographic areas different from their own area of specialization. (For example, a student specializing in European history would need to take at least one U.S. and one global-history course). At least one of these two courses must be at the 200 level.
4. At least one course, either inside or outside their area of specialization, devoted primarily to the period before 1800. An up-to-date list of courses that meets this requirement may be found in the History Department Handbook.
5. A capstone course during the senior year. This requirement may be fulfilled by writing an honors thesis, or (with the permission of the chair and instructor) by taking a research seminar or directed-research course in the student's area of specialization. The capstone requirement cannot be met by any course used to meet conditions one through four.
6. Two courses outside history in fields related to the student's area of specialization. These courses must be approved in advance by the student's history adviser and must be taken after the student has declared herself or himself to be a history major.

Majors select an adviser from the history faculty and they consult regularly, especially before registering each semester. The student and adviser design a coherent sequence of courses, and choose nonhistory courses that enhance the area of concentration. They also can make decisions about advanced research courses and enrollment in the departmental honors program.

General Track for Elementary Education Certification

This track may be taken by any student who is preparing to become certified to teach in Massachusetts at the elementary level and is available only to those students who are completing the education program in elementary education. Like the regular history major, the general track also requires 10 courses in history and two courses outside of history.

The requirements for the General Track are as follows:

EDUC283 Ways of Knowing: Social Science
HIST120 Writing History
HIST011 Survey of U.S. History to 1865
HIST012 Survey of U.S. History Since 1865
HIST070 Our European Roots I (Western Civ. To 1600)
HIST071 Our European Roots II (Western Civ. Since 1600)

- One thematic course in each of three areas (1) U.S. history; (2) European history; and (3) Non-Western history. Two must be at the 200 level and at least one must be a proseminar or seminar to be taken junior year.
- Capstone requirement completed during the student-teaching practicum, under the supervision of the student's clinical

faculty adviser in the Education Department and the student's adviser in the History Department.

- One course in American literature
- One course in European or Non-Western Literature

Honors Program

The honors program provides advanced courses for outstanding history majors, especially for aspiring professional historians. The program is appropriate for any career requiring resourcefulness and analytical and writing skills. Students must meet the general requirements for the major, choose a field of specialization and earn four honors credits as part of, or in some cases in addition to, the 10 required history courses. Students enter the program by taking a prehonors seminar or proseminar. Admission into the honors program is contingent upon the completion of a prehonors seminar and upon evidence of outstanding work in other history courses. Building on the prehonors course, students write an extensive research thesis (two course credits) under the adviser's supervision. Seniors take a directed-reading course (one course credit) related to their thesis topic. The program culminates with an oral defense of the student's thesis. The honors committee includes the student's thesis adviser and one other department member. If the committee finds the thesis or examination unsatisfactory, the student only receives ordinary history credit for the thesis and directed-reading course.

The Prehonors Seminar or Proseminar

To enroll in the honors program, students must take one of the department's seminars or proseminars that emphasize the development of research, analytical and writing skills. A significant part of these courses is devoted to the writing and revising of research papers. Students should consult with their advisers or the department chair in selecting a course that satisfies the prehonors requirement. This course is normally taken during the junior year.

History Minor

Students who wish to obtain an undergraduate minor in history must meet the following requirements: a minimum of six history courses, at least three at the 200 level, and no more than four in any one geographical area. At least one of the six courses must be a seminar or a proseminar.

Teacher Certification

Students may receive certification to teach high-school history in Massachusetts and perhaps other states. Interested students should speak to the department chair.

Accelerated Degree Program

The History Department participates in the University's accelerated B.A./M.A. program. Information about eligibility, application procedures and M.A. requirements is available in a separate brochure and from the department chair.

Graduate Program

The program focuses on two broad areas: American history and modern European history, with special emphasis on the history of the Holocaust. The department is affiliated with the American Antiquarian Society, which has one of the country's finest research libraries with more than 750,000 volumes and valuable manuscripts relating to pre-1876 American history. There are a dozen smaller libraries in Worcester with combined holdings of more than one million volumes and other research facilities in Boston, Providence, and New Haven.

Graduate course work includes reading seminars (colloquia), research seminars and individual tutorials for both reading and research purposes. Graduate students may also register in upper-division undergraduate courses at a graduate level that requires more intensive work. First- and second-year students in the doctoral program take three courses each semester, one of which must be expressly devoted to the production of a research paper. Faculty advisers help incoming students design their programs, which may include courses in other departments or colleges in the Worcester Consortium.

Master of Arts

Because of our limited size, the department offers a terminal M.A. only through the Accelerated B.A./M.A. Program, limited to qualified Clark undergraduate history majors. For more specific information regarding the application process and requirements, please contact the Clark History Department.

Doctor of Philosophy

Enables students to master the discipline of history through research, reading and teaching. In addition to meeting the 12-course requirements outlined above, a student who enters without an M.A. degree usually spends at least two full-time years at Clark, must satisfy the language requirement, teach at the college level, pass the preliminary examination and write a doctoral dissertation within seven years of matriculation. (Residency for part-time Ph.D. students is defined in terms of courses taken.)

Students concentrating in American history must pass an examination in one foreign language, normally French, German, Spanish or Russian. Those specializing in European history must pass examinations in two foreign languages, normally French and German. An examiner in each language determines if the student is proficient enough to use the language as a research tool. All language requirements must be satisfied before the preliminary oral examination is scheduled.

At the end of the first year, there is a required one-hour oral exam based on the first year's course work whether or not students have an M.A.

Some teaching experience at the college level is desirable for the Ph.D. degree. Students normally meet this requirement in their second and third years as teaching assistants.

New students, with their advisers, devise an appropriate plan of preparation for their doctoral qualifying examination, which is normally taken before the end of their third year.

Examination details are in the History Department Graduate Program Handbook. The exam constitutes the preliminary examination required by the Graduate Board. Students who pass may, upon request, receive the master of arts.

Students are advised to consider dissertation topics during their years of residence and to choose a possible dissertation adviser as soon as possible. The process of writing a dissertation is outlined in Format Regulations for Theses, Dissertations, and Research Papers at Clark University, which may be obtained from the thesis format adviser in the Graduate School Office.

Course Listing by Fields of Specialization

Method and Theory

HIST120 Writing History

U.S. History

HIST011 Survey of U.S. History to 1865
HIST012 Survey of U.S. History Since 1865
HIST016 Race and Ethnicity in American History
HIST021 Voices from Slavery/First-Year Seminar
HIST036 The Strange World of Thomas Jefferson
HIST037 19th-Century America through Women's Eyes
HIST111 Introduction to Women's Studies
HIST113 Urban Landscapes: The City in American History from Colonial to Modern Times
HIST145 U.S. History through the Novel
HIST201 Era of the American Revolution
HIST202 The Early American Republic
HIST203 Seminar in U.S. Urban History: Colonial-Modern Period
HIST204 Interpretations of American History

HIST209 America in our Time: The United States Since 1968
HIST210 Research Seminar in Early American History
HIST211 American Consumer Culture
HIST213 Gender and the City in the United States
HIST214 The American Civil War
HIST215 The Age of Lincoln
HIST216 American History in Comparative Perspective
HIST217 Reconstruction: America After the Civil War, 1865-1877
HIST219 History of American Women
HIST222 History of the South
HIST223 The Civil Rights Movement
HIST224 History of African-American Women
HIST227 The Caribbean in the Era of Slavery
HIST231 America in the Gilded Age, 1877-1900
HIST238 U.S. Foreign Policy
HIST243 American Antiquarian Society
HIST287 Advanced Topics in International Relations

European History

HIST070 Our European Roots: Western Civilization from the Ancient Hebrews through the Renaissance and Reformation
HIST071 Our European Roots: Western Civilization from the 17th Century to the Present
HIST110 Early Modern Europe
HIST115 Authority and Democracy: The History of Modern Central Europe
HIST140 England to 1688
HIST174 The Jewish Experience
HIST175 The History of the Holocaust to 1933
HIST176 The Holocaust in Historical Perspective
HIST205 Renaissance and Reformation
HIST229 Women in European History
HIST230 Armenian Genocide
HIST236 Gender, War and Holocaust Germany, 1914-1960
HIST252 The British Empire
HIST259 Modern Germany
HIST260 Rescue and Resistance during the Holocaust
HIST261 Jewish Children in Nazi-Occupied Europe
HIST265 Life and Death in the City: Occupied Europe, 1939-1945
HIST266 Refugees
HIST268 Special Topics: The Holocaust: Issues and Controversies
HIST273 Life Under German Occupation
HIST274 The Fate of the Shtetl During the Holocaust
HIST276 Modern Jewish History and Thought
HIST284 The Holocaust and Its Aftermath: 1933-Present

Global History

HIST033 Confucianism, Daoism Buddhism: Cultural Heritage of China
HIST062 War and Peace in the Middle East
HIST077 Introduction to Latin-American Civilization
HIST080 Introduction to Modern Asia
HIST084 Japanese Civilization
HIST135 History of Armenia
HIST152 Jews in Early Modern Europe and Colonial America
HIST162 The History of the Modern Middle East
HIST181 Chinese Civilization
HIST182 Modern China
HIST184 Modern Japan
HIST226 Comparative Colonialism
HIST233 Confucianism, Daoism, Buddhism: Intellectual History of China
HIST235 The Atlantic World
HIST241 History of International Human Rights
HIST242 History of Nationalism
HIST248 History of the Middle East/Seminar
HIST254 The Age of Atlantic Revolutions
HIST275 20th-Century Latin America/ Proseminar

HIST279 Late Imperial China
HIST281 The People's Republic of China
HIST282 Chinese Women in Literature and Society
HIST286 The Vietnam War
HIST288 Seminar in Chinese History
JS117 Introduction to Hebrew Bible: Narrative and Law
JS150 Jerusalem in History and Imagination
JS277 The History of Zionism in Israel/Seminar
SOC130 Genocide

Courses

HIST011 SURVEY OF U.S. HISTORY TO 1865/ LECTURE, DISCUSSION

A survey of American history from the earliest 17th-century settlements through the end of the Civil War. Introduces students to historical inquiry and stimulates creative inquiry into the origins and character of American civilization. Fulfills the historical perspective. Mr. McCoy/ Offered every year

HIST012 SURVEY OF U.S. HISTORY 1865/ LECTURE, DISCUSSION

Chronicles the rise of America to world power, focusing on key internal and foreign policy developments and conflict. Private and public life and the diversity of Americans' experiences are highlighted. Attention is given to general political, social, economic and intellectual developments. Fulfills the historical perspective. Ms. Richter, Ms. Greenwood/Offered every year

HIST016 RACE AND ETHNICITY IN AMERICAN HISTORY/LECTURE, DISCUSSION

Explores the influence that racial and ethnic patterns have on American history from colonial times to the present. Largely through firsthand accounts, students will explore the experiences of various ethnic and racial groups in American history. Fulfills the historical perspective. Ms. Greenwood/Offered every year

HIST021 VOICES FROM SLAVERY/FIRST-YEAR SEMINAR

Explores the nature and dynamic of American slavery, largely from first-hand accounts of those who experienced and observed the slave regime of the American South in the 19th century. Designed to introduce students to the historical controversies concerning slavery and to expose students to the primary sources that historians use to understand slavery and the slave regimes. Fulfills the values perspective. Ms. Greenwood/Offered periodically

HIST033 CONFUCIANISM, DAOISM, BUDDHISM: THE CULTURAL HERITAGE OF CHINA/FIRST-YEAR SEMINAR

Explores the three major intellectual traditions of China—Confucianism, Daoism and Buddhism—with special attention to the influence of Confucian, Daoist and Buddhist values on China's cultural and artistic traditions. After reading some of the major early philosophical and religious writings in these three traditions, we will explore the profound impact of Confucian, Daoist and Buddhist values on Chinese culture, as seen especially in painting, sculpture, poetry and fiction. Fulfills the aesthetic perspective. Mr. Ropp/Offered every other year

HIST036 THE STRANGE WORLD OF THOMAS JEFFERSON/FIRST-YEAR SEMINAR

Thomas Jefferson is one of the most familiar and increasingly controversial figures in American history. This seminar explores in-depth two related subjects: Jefferson's life and career (with emphasis on the intersection of the public and the private), and the central place of Jefferson's reputation and image in American culture from his time to ours. Students will read widely in recent scholarship on Jefferson as well as in primary sources. Fulfills the historical perspective. Mr. McCoy/ Offered periodically

HIST037 19TH-CENTURY AMERICA THROUGH WOMEN'S EYES/FIRST-YEAR SEMINAR

Examines key developments of the 19th century —industrialization, slavery and Civil War, westward expansion, immigration, Progressive reform—as considered in the personal writings of individual women. Traces larger trends and identifies common experiences of women, while also paying attention to the differences and divisions among them. Designed to encourage a questioning of historical sources themselves. How reliable are first-person narratives? Are diaries and letters ever truly private? How can historians read personal documents and rebuild the past through them? Ms. Richter/Offered periodically

HIST062 War and Peace in the Middle East/ First-Year Seminar

Explores the cycle of war and peace in the Middle East during the past 100 years in order to answer three questions: What role has ethnic identity played in prolonging violent conflict in the region, not merely between Arabs and Israelis, but also between Shiite and Sunni Muslims? Have the United States, the Soviet Union and the other great powers served more as peacemakers or troublemakers in the Middle East? To what degree is the contemporary confrontation between America and radical Islam "a clash of civilizations"? Case studies will range from the birth of Israel to the September 11 attacks and their aftermath. Students will write a series of brief essays based on historical and literary documents ranging from the Balfour Declaration to Osama bin Laden's fatwa against the United States. Fulfills the historical perspective. First preference for enrollment will be given to students in the International Studies Stream. Others will be admitted on a space available basis. Mr. Little/ Offered periodically

HIST070 Our European Roots: Western Civilization From Ancient Hebrews Through the Renaissance and Reformation/Lecture, Discussion

Outlines developments of Western society and our collective identity. Presents historical angles—cultural, religious, political, military, economic and social—and integrates these analytical approaches into a coherent, popular narrative. The medieval period is emphasized as the root of modern history. HIST070 and 071 are parts of a whole, but either course may be taken without the other. Fulfills the historical perspective. Staff/Offered every year

HIST071 Our European Roots: Western Civilization From the 17th Century to the Present/Lecture, Discussion

Same goal as HIST070. Covers the military revolution of the 16th century, the bureaucratic and scientific revolutions of the 17th century, the 18th-century Enlightenment, and the political, industrial, intellectual and social revolutions of the 19th and 20th centuries. HIST070 and 071 are parts of a whole, but either course may be taken without the other. Fulfills the historical perspective. Staff/Offered every year

HIST077 Introduction to Latin-American Civilization/Lecture, Discussion

Seeks to introduce the diversity and complexity of the many Latin-American nations and peoples, as well as to emphasize the historic, current and future importance of Latin America to the world. Special emphasis on ancient American civilizations, 16th-century European contact and conquests, society then and now (human rights, poverty, slavery, the many faces of race and identity), political instability, power of the military and foreign intervention. Ms. Roazen/Offered every year

HIST080 Introduction to Modern Asia/ Lecture, Discussion

Surveys modern historical trends in India, China, Japan, Southeast Asia and Korea. Through political biographies, literary selections and general histories, the course compares native traditions, colonial experiences and postcolonial developments in Asia since roughly 1800. Fulfills the historical perspective. Mr. Ropp/Offered every other year

HIST084 Japanese Civilization/Lecture, Discussion

Selected themes in contemporary and historical Japan. Fulfills the historical perspective. Staff/Offered periodically

HIST110 EARLY MODERN EUROPE/LECTURE, DISCUSSION

An introduction to the history of Europe between 1400 and 1800. Students examine the primary social, economic, religious, political and cultural events of the period and will gain an understanding of the important changes that occurred in the early modern era. Explores the colonization of the Americans, the advent of the new economic system called capitalism and the role of Europeans in the Atlantic slave trade. Staff/Offered every year

HIST111 INTRODUCTION TO WOMEN'S STUDIES

In this course we will explore the ways in which ideas about femininity and masculinity have shaped women's lives—locally and globally, in the present and historically—and how some women have challenged, even transformed, those meanings and the social relationships that flow from those two potent ideas. Among the topics that may be considered are: beauty, war, sports, politics, women's movements, sexuality, race, work, violence, fashion, family, globalization, feminism, creativity, religion, media and girlhood. This course will be taught in rotation by one of the following faculty: Prof. Ewing (Sociology), Prof. Richter (History) or Prof. Gale (Foreign Languages and Literatures). This course is open to all students in all majors. No prerequisites.

HIST113 URBAN LANDSCAPES: THE CITY IN AMERICAN HISTORY FROM COLONIAL TO MODERN TIMES/LECTURE, DISCUSSION

Examines the urban experience in what is now the United States from its multiethnic colonial origins to its multiracial present. Emphasizes the relationship between the spatial and the sociopolitical organization of the city, from the Salem witch hunts through the Los Angeles riots. Focuses on several case studies, including Worcester and New York City. Fulfills the historical perspective. Ms. Richter/Offered every year

HIST115 AUTHORITY AND DEMOCRACY: THE HISTORY OF MODERN CENTRAL EUROPE/LECTURE, DISCUSSION

HIST120 WRITING HISTORY/PROSEMINAR

Introduces students to the discipline of history, with emphasis on the different types of historical writing and on the issues involved in the research and writing of historical studies. Fulfills the historical perspective.
Ms. Greenwood, Ms. Richter/Offered every semester

HIST135 HISTORY OF ARMENIA/LECTURE, DISCUSSION

Introduces the history of Armenia from antiquity to the modern times. Examines the formation of the Armenian state as an independent entity, the role of the major powers (eg, Byzantium, Persia), and the social and political institutions under the Armenian monarchies (eg, Bagratuni, Cilicia). Covers the history of modern Armenia from the late 18th century to the 20th century, including the development of modern Armenian culture and political life in Ottoman and Russian Armenia. The course examines the emergence of the Armenian national movements, the events leading to the genocide, and the creation of the Republic of Armenia, Soviet Armenia, the re-emergence of the Republic of Armenia after the collapse of the Soviet Union, and the current issues confronting the Republic. Mr. Payaslian/Offered every year

HIST140 ENGLAND TO 1688/LECTURE, DISCUSSION

Women in European History. An introductory survey of the history of England in the medieval and early modern periods, from the 11th through 17th centuries. Students will examine how the lives of men and women in England changed over these centuries due to transformations in social life and structure, in the economy, in demography, in the political climate, and in the intellectual and religious spheres. Staff/Offered periodically

HIST145 U.S. HISTORY THROUGH THE NOVEL/LECTURE, DISCUSSION

Introduces American history with a distinctive and unconventional approach, resting on the assumption that we can gain access to the past by reading fiction. Students learn how to approach imaginative literature from an historical perspective and to appreciate the historical insight of writers who were keen observers of aspects of the making of modern America. Fulfills the historical perspective. Mr. McCoy/ Offered every year

HIST152 JEWS IN EARLY MODERN EUROPE AND COLONIAL AMERICA/LECTURE, DISCUSSION

Between ca. 1400 and ca. 1800, the rights of most European Jews were severely restricted. Their story can only be told if we take into account the actions and measures of "gentiles" vis-a-vis the Jews. Having established what these conditions were, we will direct our attention to Jewish cultural and religious practices. The course starts with late medieval Christian myths and stories about Jews, scapegoating mechanisms and outright persecution. The course will end with the extension of greater freedom to the Jews in the Age of Democratic Revolutions, which made the question of assimilation an important issue. Mr. Klooster/ Offered periodically

HIST162 THE HISTORY OF THE MODERN MIDDLE EAST/LECTURE, DISCUSSION

Focuses on Middle Eastern history and society from World War I to the present. Major themes include the collapse of the Ottoman Empire and the emergence of nation-states; colonial rule in the Arab world and the struggle for independence, the Arab-Israeli conflict; the rise of Islamic fundamentalism, and the impact of oil. Fulfills the historical perspective. Mr. Little/Offered periodically

HIST173 THE HISTORY OF RACIAL THOUGHT IN MODERN EUROPE/LECTURE, DISCUSSION

Surveys European racial thought from the 15th to the 20th century. Places racial thinking over the last five centuries in the context of social, economic, cultural and political trends. Staff/ Offered every year

HIST174 THE JEWISH EXPERIENCE/LECTURE, DISCUSSION

Surveys history of the Jewish community and the development of Judaism from the era of Alexander the Great (c. 325 B.C.E.) to the present. Examines the major political, religious, social and economic trends of each period as they affected the Jewish community and the development of Judaism. Emphasizes elements of change and continuity as well as interaction of the Jewish community with the larger culture and community. Fulfills the historical perspective. Staff/Offered every year

HIST175 THE HISTORY OF THE HOLOCAUST TO 1933/LECTURE, DISCUSSION

This course is the first of a two-part course on the History of the Holocaust. It will examine the roots of this cataclysm of western civilization up to the eve of World War II. Formerly numbered HIST278 The History of the Holocaust to 1933. Ms. Dwork/Offered every year

HIST176 THE HOLOCAUST IN HISTORICAL PERSPECTIVE/LECTURE, DISCUSSION

Content varies with the interest of the instructor. In the past, topics have included the central issues of Holocaust history: the Jewish communities of Europe, especially Eastern Europe, before World War II; Nazi ideology and the background of Weimar Germany; Nazi ascent to power; anti-Jewish policies; Jewish reactions and responses; the Nazi onslaught on Polish Jewry after the conquest of Poland in 1939; the Jewish Councils; Jewish reactions in Eastern Europe; development of Nazi policies until and including the "final Solution"; Jewish reactions in Central and Western Europe; Jewish resistance-armed and unarmed; concentration camps and death marches; issues of interpretation and controversies. Fulfills the historical perspective. Staff/Offered periodically

HIST181 CHINESE CIVILIZATION/LECTURE, DISCUSSION

Focuses on Chinese life, institutions and culture from the earliest times through the mid-19th century. Creative literature, philosophical writings and selected primary documents supplement information presented in interpretive texts and lectures. Fulfills the historical perspective. Mr. Ropp/Offered every other year

HIST182 MODERN CHINA/LECTURE, DISCUSSION

Introduces events, personalities and concepts of importance for understanding China's history from the early-19th century to the present. Readings that present the Chinese view of events supplement interpretative studies by Western scholars. Fulfills the historical perspective. Mr. Ropp/Offered every other year

HIST184 MODERN JAPAN/LECTURE, DISCUSSION

Examines Japanese political, social, economic, diplomatic and cultural history from approximately 1800 to the present. Focuses on issues arising in the transition of a non-Western culture from a feudal society to a modern political-economic unit. Fulfills the historical perspective. Staff/Offered every other year

HIST201 ERA OF THE AMERICAN REVOLUTION/ LECTURE, DISCUSSION

Studies the origins, character and consequences of the American Revolution, from the erosion of imperial authority in the 1760s and 1770s to the Constitutional Convention of 1787. Emphasizes relation of ideology and political ideas to social development. Mr. McCoy/Offered every other year

HIST202/HIST302 THE EARLY AMERICAN REPUBLIC/LECTURE, DISCUSSION

Studies formation and testing of the early United States from the adoption of the Constitution through the Jacksonian era. Emphasizes ideology, public policy and the problem of national integration during an age of extraordinary territorial and economic expansion. Mr. McCoy/Offered periodically

HIST203/HIST303 U.S. URBAN HISTORY: COLONIAL-MODERN PERIOD/SEMINAR

Examines the urban experience in what is now the United States from its multiethnic colonial origins to its multiracial present. Emphasizes the relationship between the organization of space in the city and the social and political organization of the city from witch hunts to riots. Staff/Offered periodically

HIST204/HIST304 INTERPRETATIONS OF AMERICAN HISTORY/ PROSEMINAR

A colloquium that takes a broadly conceptual and historiographical approach to the literature in early American history, from the origins of colonization to approximately 1820. Permission of the instructor is required. Mr. McCoy/Offered periodically

HIST205/HIST305 RENAISSANCE AND REFORMATION/LECTURE, DISCUSSION

Charts the course of European history from ca.1300 to 1600. Reviews the devastation caused by the plague and examines the rise of the city-states in Italy. Deals with successful reformers (Luther, Zwingli, and Calvin) as well as the more short-lived radical currents such as the Anabaptists of Munster, who declared property to be in common, outlawed the use of money, and made polygamy compulsory. The course will also introduce the Spanish Inquisition and discuss everyday violence between Calvinists and Catholics in France. Mr. Klooster/Offered every other year

HIST209/HIST309 AMERICA IN OUR TIME: THE UNITED STATES SINCE 1968/LECTURE, DISCUSSION

Examines the recent American past from Watergate through Generation X. Utilizes film and video to reacquaint students with figures ranging from Elvis Presley and Richard Nixon to Ronald Reagan and Anita Hill. Major themes include the death and rebirth of the affluent society, the persistence of ethnic and racial conflict, and the waning of the Cold War. Formerly titled: The United States Since 1945. Staff/Offered periodically

HIST210/HIST310 RESEARCH SEMINAR IN EARLY AMERICAN HISTORY/SEMINAR

A combination of individual and collective endeavors. Focuses on historical research and writing. Students research a topic in early American history through the Civil War. Permission of the instructor is required. Mr. McCoy/Offered periodically

HIST211/HIST311 AMERICAN CONSUMER CULTURE/SEMINAR

Investigates the nature and meaning of the consumer experience in American history. Draws upon studies of advertising, domestic life and urban institutions and examines the varied ways in which historians have defined and interpreted the importance of consumption within American life. Introduces students to the process of primary historical research. Ms. Richter/Offered periodically

HIST213/HIST313 GENDER AND THE CITY IN THE UNITED STATES/SEMINAR

Focusing on the 19th and 20th centuries, examines where urban life for men and women diverged and where it met. Readings on men, women and urban space, reform movements, utopian ideals and other topics are followed by student research projects using local resources. Ms. Richter/Offered periodically

HIST214/HIST314 THE AMERICAN CIVIL WAR/LECTURE, DISCUSSION

Examines events and trends precipitating the single greatest crisis in American history, the Civil War of 1861-65. Includes consideration of the behavior and experience of Americans during the war itself. Mr. McCoy/Offered every other year

HIST215/HIST315 THE AGE OF LINCOLN/PROSEMINAR

A reading, discussion and research course focusing on an extraordinary individual and his times. Emphasizes biography and the relationship between the private and the public in Abraham Lincoln's life, which becomes the vehicle for understanding better the distinctive problems and concerns of American society, culture and politics from approximately 1815 through the end of the Civil War. Mr. McCoy/Offered every other year

HIST216/HIST316 AMERICAN HISTORY IN COMPARATIVE PERSPECTIVE/PROSEMINAR

Content and topics vary with instructor's interests. A reading and discussion course exploring the advantages of taking a comparative approach to selected key themes and issues in the history of the United States. Permission of the instructor is required. Staff/Offered periodically

HIST217/HIST317 RECONSTRUCTION: AMERICA AFTER THE CIVIL WAR, 1865-1877/SEMINAR

Examines American history in the post-Civil War period, from 1865 to 1877, a period of national redefinition and political and social experimentation. Explores how Americans struggled with the consequences of the Civil War and emancipation. Grounds students in the historical literature of the Reconstruction era while emphasizing original student research in local sources. Ms. Greenwood/Offered periodically

HIST219/HIST319 HISTORY OF AMERICAN WOMEN/LECTURE, DISCUSSION

Examines female experience in the United States, focusing on issues of power, race, ethnicity and class, and on concepts of work, family and gender, with their ramifications for the world of both sexes. Fulfills the historical perspective. Ms. Richter/Offered every year

HIST222/HIST322 HISTORY OF THE SOUTH/LECTURE, DISCUSSION

Explores the history of the South from the colonial period to the present, focusing on how the South developed as a distinctive region of the United States. Examines development of slavery; impact of slavery on the economy, politics and culture of the South; race, class and gender in the Old and New South; myth and reality of the New South; the South in the 20th century. Ms. Greenwood/Offered periodically

HIST223/HIST323 THE CIVIL RIGHTS MOVEMENT/LECTURE, DISCUSSION

Examines roots and evolution of the Civil Rights Movement from the 1930s to the present. Includes civil rights as a grassroots movement; the New Deal, World War II and civil rights; emergence of Martin Luther King; women and the Civil Rights Movement; black power; the disintegration of the movement; the meaning of civil rights today. Ms. Greenwood/Offered every other year

HIST226/HIST326 COMPARATIVE COLONIALISM/ SEMINAR

Seeks to examine the ways in which Spanish, Dutch and English societies evolved in the New World from 1492 to 1824. Topics include the motives and backgrounds of settlers, encounters with natives, syncretism, the search for crops and precious metals, contacts with the mother countries, the contributions of Africans, and the revolutions that made an end to the mainland empires. Mr. Klooster/Offered periodically.

HIST227/HIST327 THE CARIBBEAN IN THE ERA OF SLAVERY, 1492-1886/LECTURE, DISCUSSION

The first encounters between Europeans and Indians occurred in the Caribbean. Spanish arms, germs and labor demands dramatically reduced the numbers of natives, while changing their world beyond recognition. A second profound transformation took place in the 17th century, when other Europeans powers moved into the area. From an economic backwater, the Caribbean became an economic laboratory, the site of a profoundly capitalist transformation. A new demographic environment was created as the coexistence of European and native peoples gave way to a population of large groups of African slaves and European indentured servants and wage laborers. This course will follow the tensions among colonial powers, between slaves and masters, and between colonies and metropoles through the eradication of slavery. Mr. Klooster/Offered every other year

HIST229/HIST329 WOMEN IN EUROPEAN HISTORY/LECTURE, DISCUSSION

Examine the history of European women up to 1800. Topics will include premodern ideas about women and gender; women's role in and relationship to religion; women's work; women's position within the household; comparisons between rural and urban women, and among elite, middle-class and peasant women; the effect of marital status on single, married and widowed women; the effects of major historical changes such as the Reformation and the rise of capitalism on women; and the emergence of movements for women's rights.
Staff/Offered periodically

HIST230/HIST330 ARMENIAN GENOCIDE/ SEMINAR

Examines the various dimensions of the Armenian Genocide, through scholarly analyses, survivor narratives, journalistic accounts and other resources. Through the course, students develop a detailed understanding of the actual events of the genocide, its social and political causes, and its immediate and long-term impact on individual Armenians and the Armenian nation generally. Students will also treat in-depth the initial external response to the genocide, its political and legal aftermath, and the significant effort still made by the Turkish successor state to deny that the genocide occurred. Mr. Payaslian/Offered periodically

HIST231/HIST331 AMERICA IN THE GILDED AGE, 1877-1900/ PROSEMINAR

Focuses on a volatile period of American history, the Gilded Age, 1877 to the turn of the century. Examines Gilded Age society, culture, economy and politics. Includes immigration and urbanization, industry and labor relations, family life and agrarian movements.
Ms. Greenwood/Offered every other year

HIST233 CONFUCIANISM, DAOISM, BUDDHISM: INTELLECTUAL HISTORY OF CHINA/LECTURE, DISCUSSION

Explores the three major intellectual traditions of China, with special emphasis on the ethical values of each tradition and their historical and contemporary relevance. Fulfills the values perspective. Not open to students who have taken the first-year seminar, HIST033.
Mr. Ropp/Offered periodically

HIST235/HIST335 THE ATLANTIC WORLD/ LECTURE, DISCUSSION

A course that deliberately moves away from the traditional focus on nation-states and continents, concentrating instead on the Atlantic world that was created in the wake of the Portuguese explorations and Columbus' voyages. The emphasis will be on the flow of people, commodities, germs, and ideas between the Old World (Europe and Africa) and the New. Fulfills the historical perspective. Mr. Klooster/Offered every year

HIST236/336 GENDER, WAR AND HOLOCAUST GERMANY, 1914-1960/SEMINAR

HIST238/HIST338 U.S. FOREIGN POLICY/ LECTURE, DISCUSSION

Analyzes America's rise to globalism from World War II through the Cold War and beyond, focusing on key policymakers like FDR, JFK, Henry Kissinger and Bill Clinton. Topics include the atomic bomb, the CIA, the Vietnam War and the Arab—Israeli conflict. Special emphasis on the dilemmas of the 1990s—the Gulf War, Bosnia and economic rivalry with Japan. Formerly titled U.S. Foreign Relations since 1914. Staff/Offered every other year

HIST241/HIST341 HISTORY OF INTERNATIONAL HUMAN RIGHTS/LECTURE, DISCUSSION

This course will introduce the student to one of the most fundamental issues in the evolution of societies: human rights. Examines the various conceptions of personal rights since the ancient times. Issues related to the promotion and protection of human rights as premised on the fundamental principles of basic human dignity and individual rights are explored. Examines also the emergence of domestic human rights and the relationship between just society and political legitimacy. Mr. Payaslian/ Offered periodically

HIST242/HIST342 HISTORY OF NATIONALISM/ LECTURE, DISCUSSION

Reviews the history of nationalism from the Enlightenment to the French Revolution and the Napoleonic Wars, the rise of nationalism in the 19th century, national integration, right-wing nationalism, and nationalism between the First World War and the Second World War, the liberations movements in the 20th century and the revival of nationalism in the late 20th century. It pays special attention to the role of ethnicity and religion, the hostilities generated by the more virulent forms of nationalism, the destructive consequences of such movements for ethnic and religious communities and the phenomenon of genocide. Mr. Payaslian/Offered every other year

HIST243 AMERICAN ANTIQUARIAN SOCIETY SEMINAR IN AMERICAN STUDIES/SEMINAR

Given at the American Antiquarian Society (about two miles from Clark); students conduct original research in the society's unique holdings. Students apply in the spring through Professor Klooster. American Antiquarian Society, Mr. Klooster/Offered every year

HIST248/HIST348 HISTORY OF THE MIDDLE EAST/SEMINAR

Introduces students to one of the most critical regions of the world - the Middle East. Examines the different legacies from the past. Looks at the role of outside powers and their impact of modernization and economic development and the problems associated with nation and state building. Examines the nature and causes of the various conflicts in the region, especially the Israeli-Palestinian conflict and the role of international organizations and the prospects for conflict resolution. The course is concluded by reviewing some of the major events in recent years (for i.e The Gulf War, 9/11) as well as efforts toward greater regional cooperation. Mr. Payaslian/Offered periodically

HIST252/HIST352 THE BRITISH EMPIRE/ LECTURE, DISCUSSION

Reviews the evolution of the British Empire from the 18th century to the 1960s and 1970s. Four major topics are examined: the rise of the British Empire and key elements contributing to imperial expansion: the American Revolution and its impact on British colonial policy; British imperial expansion in Africa and Asia and problems of colonial administration and stability; and evolution from empire to commonwealth. Mr. Payaslian/Offered periodically

HIST253/HIST353 20TH-CENTURY EUROPE/ LECTURE, DISCUSSION

Deals with Europe in the 20th century and focuses on some of the key social, political and cultural developments in what turned out to be the most disturbing chapter in Europe's long history. Staff/Offered every year

HIST254/HIST354 THE AGE OF ATLANTIC REVOLUTIONS/SEMINAR

The half-century after 1776 was a period marked by the violent pursuit of political liberty and economic opportunity on both sides of the Atlantic. In North America, the Thirteen Colonies were transformed into the United States of America informed by an Enlightenment ideology of rationalism, secularism and democracy, which had long been cultivated in Europe. Tapping the same sources, the French rebels soon saw their revolution degenerate into a bloody spectacle. Another consequence of the French Revolution was the rebellion in the Caribbean colony of St. Domingue, in the course of which slavery was abolished and independence achieved. Mr. Klooster/Offered every other year

HIST259 MODERN GERMANY/LECTURE, DISCUSSION

Examines key cultural, social and political developments in Germany from the early 19th-century, with emphasis on Bismarck's Germany, the era of the first World War, the Revolution of 1918-19 and the Weimar Republic. This is the first of a two-part course on the history of modern Germany. It also provides an introduction to the Nazi period, though this turbulent and tragic time is studied in-depth in the second semester course. Formerly titled Modern Germany. Mr. Kuehne/Offered every other year

HIST260/HIST360 RESCUE AND RESISTANCE DURING THE HOLOCAUST/SEMINAR

Investigates rescue and resistance activities during the Second World War. Our aim will be to come to a critical understanding of what we mean by "rescue" and "resistance," and to analyze how these undertakings were organized, who participated in them and why people felt compelled to do so. Looks at the role and function (if any) of age, gender, degree of religious observance, political affiliation and social class in our attempts to understand not only what activities were undertaken, but the motivation for such actions. Ms. Dwork/Offered every third year

HIST261/HIST357 JEWISH CHILDREN IN NAZI-OCCUPIED EUROPE/SEMINAR

Jewish children had many different types of living experiences during the war years. The purpose of this course is to study the lives of European Jewish children during and after the occupation years. Studying the youngest and most vulnerable members of society, students will learn about the children themselves and about the adults who framed and shaped their lives. Ms. Dwork/Offered every third year

HIST263/HIST363 NAZI TERROR IN GERMANY AND EUROPE/LECTURE, DISCUSSION

Investigates the emergence of the Gestapo and concentration camp systems in Germany between 1933 and 1939 and the revolutionary transformations brought about by WWII. Staff/Offered periodically

HIST265/HIST365 LIFE AND DEATH IN THE CITY: OCCUPIED EUROPE, 1939-1945/SEMINAR

Examines the daily lives of ordinary people—gentile and Jewish—in the cities of occupied Europe during WWII. Ms. Dwork, Ms. Pritchard/Offered periodically

HIST266/HIST366 REFUGEES/SEMINAR

The aim of this course will be to investigate and analyze the history of the "Refugee Question" in Europe and America, and to explore the impact of these international and national debates on the lives of the asylum seekers. Ms. Dwork/Offered periodically

HIST268/HIST368 SPECIAL TOPICS ON HOLOCAUST ISSUES/SEMINAR

Content varies with the interest of the instructor. In the past, topics have included Issues and Controversies, and Holocaust Perpetrators. Staff/Offered periodically

HIST270/HIST370 HOME FRONTS IN WORLD WAR II/SEMINAR

Studies how the war fundamentally and dramatically affected societies behind the lines. The course focuses on the three main European combatants—Germany, the Soviet Union and Great Britain, but some effort is made to compare and contrast what happened in the United States and Japan. The course compares the home fronts with regard to themes such as mobilizing the population, integrating women and dealing with youth. It studies the styles and approaches of wartime leaders to the many challenges they faced at home, and explores the uses made of propaganda to uphold morale and to represent the enemy. An effort is made to look at what happened to social outsiders, such as those who were deemed "race enemies" and aliens. There is attention to "out" groups, like dissenters, pacifists, deserters and delinquents. Mr. Gellately/ Offered every other year

HIST272/HIST372 ADVANCED TOPICS ON LATIN AMERICA/RESEARCH SEMINAR

An advanced, hands-on course, which combines independent research and readings with lively class discussions on specific topics chosen by students and drawn from any time period relating to Latin America. The class utilizes historical experiences and lessons to understand current situations, challenges and changes facing the diverse nations and peoples of Latin America today while exploring solutions to a wide range of persistent dilemmas. Ms. Roazen/Offered periodically

HIST273 LIFE UNDER OCCUPATION/SEMINAR

Examines life under German occupation critically. The life of Jews under German occupation clearly was different than the life of their gentile neighbors, but what is equally true but not so obvious is the difference in occupation regimes across Europe. To highlight that fact and the embedded issues, the course will focus on Poland, France, Bulgaria, the Netherlands and Denmark. Particular attention will be paid to the history of France, because of the division between the north and south, and the role of Petain and Vichy. Ms. Dwork/Offered every third year

HIST274/HIST374 THE FATE OF THE SHTETL DURING THE HOLOCAUST/SEMINAR

Deals with Brest-Litovsk as an example of Jewish settlements in Eastern Europe and their fate during the Holocaust. Additional communities will be brought in by way of comparison, mainly Hrubieszow and Kosow Huculski. Comparison with the fate of the larger, better-known Jewish communities in Poland and Lithuania will be drawn. Staff/Offered periodically

HIST275/IDCE379 20TH-CENTURY LATIN AMERICA/PROSEMINAR

In-depth examination of various issues, events and people of 20th-century Latin America which have, for better or for worse, shaped Latin America today and where the region is headed in the 21st century. Topics include: human rights, NAFTA, debt and trade plans, race and identity, revolutions, the drug war, the Amazon controversy and U.S./Latin-American relations. Ms. Roazen/Offered periodically

HIST276/HIST376 MODERN JEWISH HISTORY AND THOUGHT/LECTURE, DISCUSSION

Discusses the emergence of the Jew into modern society after the French Revolution. The political and ideological struggle over emancipation and adjustment are traced through the growth of Jewish denominationalism in Western Europe. The competing ideologies of Jewish nationalism (including those of both Zionist and non-Zionist character) are discussed in the context of Eastern European Jewry and its unique contribution to modern Jewish identity. Course concludes with an examination of the Weimar Republic in Germany (1918-1933) and the independent Polish State (1918-1939). Staff/Offered every other year

HIST279 LATE IMPERIAL CHINA/SEMINAR

Explores the history of Chinese civilization from the Yuan Dynasty through the late 19th century. Examines the relationship between the Chinese state and society, focusing upon developments of fundamental systems of thought and society. Mr. Massey and Mr. Ropp/Offered periodically

HIST281 THE PEOPLE'S REPUBLIC OF CHINA/LECTURE, DISCUSSION

Surveys life in the People's Republic of China from 1949 to the present. Includes a history of the People's Republic and attention to such themes as politics, society, family life, economics, foreign relations, literature and the arts. Mr. Ropp/Offered every other year

HIST282 CHINESE WOMEN IN LITERATURE AND SOCIETY/LECTURE, DISCUSSION

Examines the changing role of women in Chinese society from the 17th century to the present, primarily through the reading and discussion of Chinese literature in English translation. Mr. Ropp/Offered every other year

HIST284/HIST384 THE HOLOCAUST AND ITS AFTERMATH, 1933-1996/LECTURE, DISCUSSION

Although this course is the second part of a two-semester course on the history of the Holocaust, the first semester (HIST175) is not a prerequisite for this course. This term the course will return briefly to 1933 to cover the National Socialist years prior to the war. The purpose of the course is to provide students with a critical, analytical understanding of the Holocaust and the context in which it occurred, and encourage them to think about its long-term effects. Ms. Dwork/Offered every year

HIST286/HIST386 THE VIETNAM WAR/LECTURE, DISCUSSION

Explores the Vietnam War, emphasizing American involvement in Vietnam in the decade 1965 to 1975. Includes a survey of the history and culture of Vietnam, French experience in Vietnam, and American involvement with Vietnam from World War II to the present. Staff/Offered periodically

HIST288 SEMINAR IN CHINESE HISTORY/SEMINAR

Topical research seminar in Chinese history for those with a concentration in Asian Studies. Prerequisite: either HIST080, 181 or 182; or by permission. Mr. Ropp/Offered periodically

HIST299 SEC. 1 DIRECTED READINGS/TUTORIAL

Undergraduates, normally juniors and seniors, design a directed readings course consisting of a sequence of structured readings on a topic approved and supervised by an instructor. Prerequisite: permission of instructor. Offered for variable credit. Staff

HIST299 SEC. 2 RESEARCH PROJECTS/TUTORIAL

Undergraduates, normally juniors and seniors, construct an independent research course with an instructor of their choosing. Prerequisite: permission of instructor. Offered for variable credit. Staff

HIST299 SEC. 8 HONORS THESIS RESEARCH

Honors students receive up to two credits for thesis research. Honors students preparing for the comprehensive exam receive credit for their reading under HIST299. Offered for variable credit. Staff/Offered every year

HIST299 SEC. 9 INTERNSHIP

Students who undertake an interdisciplinary internship for more than two credits may receive up to two credits in history and the remainder in another department. Prerequisite: permission of instructor and department chair. Offered for variable credit. Staff

HIST300 READINGS IN AMERICAN COLONIAL HISTORY/TUTORIAL

HIST301 STUDIES IN THE AGE OF THE AMERICAN REVOLUTION/TUTORIAL

HIST333 ADVANCED TOPICS IN U.S. WOMEN'S HISTORY/SEMINAR, DISCUSSION, READINGS

An advanced readings course in women's history, looking at major new works and theoretical issues. Ms. Richter/Offered every other year

HIST334 ADVANCED TOPICS IN U.S. WOMEN'S HISTORY/RESEARCH SEMINAR

An advanced research seminar for topics in U.S. women's history. Ms. Richter/Offered every other year

HIST350 STUDIES IN EARLY MODERN EUROPEAN HISTORY/TUTORIAL

Independent studies. Offered for variable credit. Ms. Froide

HIST383 Studies in Chinese History/Tutorial
Independent Studies. Offered For Variable Credit. Mr. Ropp

HIST392 Thesis Research
University-wide course number reserved for this research. Variable Credit. Staff

HIST394 Graduate Research Symposium
University-wide course number reserved for this type of course.

HIST397 Master's Thesis
University-wide course number reserved for work on the Master's thesis. Variable Credit. Staff

HIST398 Doctoral Dissertation
University-wide course number reserved for doctoral dissertation work. Variable Credit. Staff

HIST399 Graduate Readings
Offered for variable credit. Staff

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in History. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See Ancient Civilization

CLAS157 The Age of Nero
CLAS262 Jews and Christians in the Ancient World
CLAS267 Religious Experience in the Ancient World

See Government

GOVT178 South Africa: History and Contemporary Politics
GOVT245 Americans, Israelis and Arabs
GOVT246 The United States and the Persian Gulf
GOVT256 Corruption, Crime and Chaos in Contemporary Russia
GOVT272 U.S. Constitutional Law: Civil Liberties
GOVT273 U.S. Constitutional Law: Governmental Powers
GOVT280 Superpower Surrendering? Russia and the World

See IDCE

ID293/IDCE317 Advanced Topics in International Relations

See Jewish Studies

JS117 Introduction to the Hebrew Bible I: Narrative And Law
JS150 Jerusalem in History and Imagination
JS277 The History of Zionism in Israel

See Sociology

SOC130 Genocide

INTERNATIONAL DEVELOPMENT, COMMUNITY, AND ENVIRONMENT (IDCE)

The International Development, Community and Environment Department (IDCE) offers two undergraduate programs and four graduate programs. The two undergraduate programs in International Development and Social Change and Environmental Science and Policy also offer an accelerated B.A./M.A. degree. In addition, the graduate program in Community Development and Planning offers an accelerated B.A./M.A. degree to qualified Clark students. The graduate programs include International Development and Social Change; Community Development and Planning; Geographic Information Sciences for Development and Environment; and Environmental Science and Policy.

The IDCE Department stresses an interdisciplinary approach linking geography, anthropology, the environmental sciences, economics, government and history. Divisions between disciplines are crossed as students take advantage of courses in the different programs. They develop a multidimensional perspective that is critical to tackling the complex challenges of sustainability, community building and policy making.

For more information, visit the IDCE Web pages at http://www.clarku.edu/departments/idce

IDCE UNDERGRADUATE PROGRAMS

ENVIRONMENTAL SCIENCE AND POLICY

Program Faculty

Charles Agosta, Ph.D.
S. Leslie Blatt, Ph.D.
Halina Brown, Ph.D.
Patrick Derr, Ph.D.
Timothy Downs, D.Env.
Jody Emel, Ph.D.
Susan Foster, Ph.D.
Jacqueline Geoghegan, Ph.D.
Robert Goble, Ph.D.
Dale Hattis, Ph.D.
Todd Livdahl, Ph.D.
Donald Nelson, Ph.D.
Samuel Ratick, Ph.D.
Joseph Sarkis, Ph.D.

Affiliate Faculty

Lois J. Bruinooge, J.D.

Program Overview

Environmental science and policy is an interdisciplinary undergraduate program that emphasizes policy questions about the environment and the use and misuse of technology. How should industry's use of toxic materials be regulated? How should scarce water resources and fisheries be managed in different countries and cultures? What is the role of technology in preserving the environment for future generations? The goal of the program is to prepare individuals to deal with technical and environmental issues in society. Environmental science and policy majors learn about natural sciences and qualitative analysis as well as the role of institutions in society and the political process. They explore the use of science in policy making.

Environmental science and policy faculty, from a wide variety of departments and disciplines, actively participate in policy making through research and consulting. Their activities include: assessing the risk of radioactive waste to Native American communities, advising state agencies on limiting the use of toxic chemicals by industry, evaluating water supply and sanitation in Mexico, advising industry on management of technological hazards, and designing decision tools for the Environmental Protection Agency. Undergraduates gain invaluable hands-on research experience through collaborative projects with faculty and graduate students.

With courses such as Earth Transformed by Human Action, Climate Systems and Global Environmental Change, and Limits of the Earth, students learn about the condition and future of life on Earth. They acquire scientific methods and tools for analysis in Environmental Chemistry, Discovering Environmental Science, Hydrology, Computer and Quantitative Methods, Energy and Environment, Ecology, Environmental and Natural Resource Economics, Sustainable Fisheries, and Advanced Remote Sensing. Those concerned with the effects of pollutants on human health—and with policies to manage these risks—can take Cancer: Science and Society, Environmental Toxicology, or Environmental Law. Courses such as Environmental Ethics, Corporate Environmental Management, Societal Evaluation of Environmental Hazards, or Sustainability, Institutions and Policy Making focus on societal institutions, values and norms. Emphasis of all these courses is on the effects of human activities on the natural environment and public health and on the use of science in policy making.

Environmental science and policy is an ideal major for students planning to continue in professional schools, because its requirements dovetail with those for many premedical and predental programs. The number of jobs available to graduating environmental science and policy majors increases every year.

For more information about the undergraduate program in environmental science and policy, visit our Web site at www.clarku.edu/idce/environmentalscience/ba.

Major Requirements

Required courses have been designed to provide students with a solid foundation in natural science and an in-depth understanding of social science and public-policy perspectives. A strong grasp of natural science is vital for two reasons: (1) many fundamental issues are fully understood only when the scientific elements are made clear and (2) there is a great need in this field for managers of science, technology and environment who possess a comprehensive scientific background. Recognizing this, the environmental science and policy major emphasizes natural science and mathematics.

Degree requirements include 18 courses:

- Ten courses of natural science and/or mathematics (in one of three tracks)
- Two courses in the social sciences, with emphasis on public policy
- Six Environmental Science and Policy courses, including the capstone

Environmental science and policy majors may satisfy the ten course requirement for science and/or mathematics by choosing one of the following three tracks: Natural Science with a Disciplinary Focus; Natural Science in Ecology; or Mathematics and Computer Science.

I. Natural-Science Track with a Disciplinary Focus

Required: Ten Courses of natural science and/or mathematics

A. Six courses in one discipline of natural science (physics, chemistry, biology, biochemistry, earth science and quantitative mapping)

B. Two additional courses in a second natural science (physics, chemistry, biology, biochemistry, earth science and quantitative mapping)

C. Two courses in mathematics (a calculus course and a statistics course)

The following courses satisfy the statistics requirement:

BIOL106 Quantitative Methods in Biology
BIOL280 Biostatistics and Computer Applications
ECON160 Introduction to Statistical Analysis
GOVT107 Research Methods
GEOG110 Computer and Quantitative Methods
PSYC105 Quantitative Methods

II. Natural-Science Track in Ecology

Required: Ten Courses of natural science and/or mathematics

A. Eight courses in biology and physical geography and quantitative mapping.

The following courses represent the physical geography and quantitative mapping cluster:

ID190 Introduction to GIS
GEOG087 Introduction to Environmental Information Systems
GEOG101 Introduction to Environmental Geology
GEOG102 Understanding the Weather
GEOG103 Natural Environment of New England
GEOG115 Hydrology
GEOG232 Landscape Ecology
GEOG260 Quantitative Environmental Modeling
GEOG263 Climate Systems and Global Environmental Change
GEOG271 Groundwater Hydrology and Management
GEOG282 Advanced Remote Sensing
GEOG281 Tropical Ecology

The following biology courses are particularly appropriate for the Ecology Track:

BIOL101/102 Introduction to Biology (parts 1 and 2)
BIOL104 Biodiversity
BIOL105 Evolution
BIOL110 Introduction to Botanical Diversity
BIOL114 Marine Biology

BIOL216 Ecology
BIOL217 Ecology of Infectious Disease
BIOL220 Population Biology
BIOL201 Ecology of Atlantic Shores
BIOL224/324 Ecology of Disease Vectors

B. Two courses in math (a calculus course and a statistics course).

The following courses satisfy the statistics requirement:

BIOL106 Quantitative Methods in Biology
BIOL280 Biostatistics and Computer Applications
ECON160 Introduction to Statistical Analysis
GEOG110 Computer and Quantitative Methods
GOVT107 Research Methods
PSYC105 Quantitative Methods

III. Mathematics and Computer Science Track

Required: Ten courses of natural science and/or mathematics.

A. Four courses in natural science (chosen from biology, physics and physical geography), including: BIOL104 Biodiversity or PHYS144/PHYS240 Energy and the Environment

B. Six courses in computer science and/or mathematics, including a calculus course and a statistics course. Of the six courses, at least two must be 200-level.

The following courses satisfy the statistics requirement:

BIOL106 Quantitative Methods in Biology
BIOL280 Biostatistics and Computer Applications
ECON160 Introduction to Statistical Analysis
GEOG110 Computer and Quantitative Methods
GOVT107 Research Methods
PSYC105 Quantitative Methods

Students are required to consult with a faculty adviser from the Mathematics and Computer Science Department in order to develop a coherent course of study in that discipline.

Required for all three tracks:

Two courses in social sciences, with emphasis on public policy (chosen from the fields of economics, government, social geography or sociology). Examples of courses in this cluster:

ECON157 The Economics of Natural Resources and the Environment
ECON257 Environmental and Natural Resource Economics
GEOG126 Living in the Material World
GEOG127 Political Economy of Development
GEOG179 International Political Ecology
GEOG222 Why Global Warming Matters
GEOG224 Economy and Environment
GOVT154 Politics of Public Policy in the United States
GOVT157 Politics of Environmental Issues in the United States
GOVT213 Policy Analysis
GOVT216 Comparative Environmental Politics
GOVT281 Policy Implementation
GOVT223 Suburban Policy Issues
SOC205 Sociology of Environment

Six environmental science and policy courses. Of the six, three are required and three are elective, as specified below:

- EN101 Introductory Case Studies in Environmental Science and Policy or PHIL131 Environmental Ethics
- EN175 Science, Uncertainty, Decisions or EN120 Discovering Environmental Science
- EN290 Capstone Seminar
- Three additional elective EN courses, of which at least two must be at 200-level. Of the 200-level courses, at least one must have a strong policy component (see following list).

Appropriate environmental science and policy courses:

BIOL216 Ecology
CHEM142 Environmental Chemistry
ECON257 Environmental and Natural Resource Economics

- EN120 Discovering Environmental Science
- EN226 The Societal Analysis and Evaluation of Environmental Hazards
- EN240 Energy and the Environment
- EN241 Environmental Toxicology
- EN246 Cancer: Science and Society
- EN247 Computer and Quantitative Methods in Risk Analysis
- EN250 Technology and Environmental Assessment
- EN251 Limits of the Earth
- EN261 Decision Methods for Environmental Management and Policy
- EN265 Risk Analysis: Policy and Methods
- EN276 Environmental Law
- EN282 Management of Environmental Pollutants
- EN286 Sustainability, Institutions and Policy Making
- GEOG180 Earth Transformed by Human Action
- GEOG284 Environment and Development
- ID260 Quantitative Modeling
- MGMT252 Corporate Environmental Management
- PHIL131 Environmental Ethics

Declaring a Major

Clark requires all undergraduates to declare a major by the end of the second semester of the sophomore year. To do so, students obtain a declaration-of-major form at the Registrar's Office or in Academic Advising. The completed form should be signed by the undergraduate environmental science and policy adviser. A copy of the signed form should be given to the IDCE office, which will maintain an undergraduate folder for you.

Double Majors

The environmental science and policy major meshes very well with a double major in science or mathematics, due to the emphasis placed on developing a solid scientific and/or mathematics background. Selecting this double major automatically fulfills the natural science/mathematics requirements of this program. This leaves a relatively small number of classes, mostly in the social sciences and environmental science and policy categories, to be taken in addition to departmental requirements. Several of these will fulfill the University's requirements for the Program of Liberal Studies as perspective courses.

Continued Academic Advising

After becoming environmental science and policy majors, students should consult with their undergraduate environmental science and policy adviser, who will provide information, help select a course of study, and discuss progress. The environmental science and policy adviser replaces the academic adviser assigned when entering Clark. This faculty advising assures that students' questions are answered and confirms that degree requirements and educational goals are met. Students are encouraged to discuss any other important academic issues or concerns with their advisers.

Research Participation

Research participation provides a valuable learning opportunity as students interact with faculty members beyond the classroom. Most research projects require the equivalent of one or two semester-long courses, and often involve joining a research group comprised of one or more faculty and graduate students.

Internships

Internships broaden undergraduate education, and majoring students are encouraged to work outside the University in paid or unpaid positions related to their studies. An internship is most valuable after the junior year, when a student has developed intellectually and is ready to tackle interdisciplinary problem solving. This experience can be very helpful when it comes time to identify a research topic to be pursued in the senior year. A combination of work experience and research in their field proves invaluable when students enter the job market.

Internships are usually obtained on a case-by-case basis with the advice and assistance of the environmental science and policy faculty adviser. Students who are interested in internships should discuss the matter with their undergraduate adviser and Academic Advising. If students wish to receive credit for an internship, it is essential that they provide a detailed written analysis of their work.

Honors Program

Honors in environmental science and policy is awarded upon presentation and oral defense of an undergraduate capstone project and poster, which is presented at the Clark Academic Spree Day. To be considered, students must have attained at least a 3.0 grade-point average in courses related to the major by their junior year. It is advisable to begin work during the summer after the junior year on a project that can be extended into an honors thesis during the senior year. A faculty member will serve as a project mentor, so it is essential for students to gain his or her agreement before beginning the project. The proposal must be submitted to the environmental science and policy faculty and approved in the beginning of the fall semester of the senior year. There are three classifications of honors: honors, high honors, highest honors.

Accelerated Degree Program

The accelerated B.A./M.A. program provides more intensive graduate study of environmental science and policy in combination with a liberal-arts B.A. degree. This degree is offered through the Department of International Development, Community and Environment. Students in any undergraduate field are accepted for the M.A. degree, though environmental science and policy undergraduate majors do have a significant advantage in preparation. Qualified environmental science and policy majors can be admitted into this program without any additional requirements. Majors in other disciplines, however, must supplement their studies with a number of preparatory environmental science and policy courses. Students must apply for this program by the junior year to receive full-tuition remission.

A request for admission to the combined B.A./M.A. program is made to the environmental science and policy graduate adviser during the junior year, and will be granted in the senior year on presentation of an acceptable program of undergraduate study. Full-tuition remission requires a cumulative average of 3.25 or better. Students admitted to the B.A./M.A. program take two graduate courses in their senior year. During the fifth year, their requirement for completion of the master's degree consists of eight additional credits.

The master's degree in environmental science and policy is intended to train individuals to go directly from Clark into problem-solving jobs in the areas of health-risk assessment, ecological-risk assessment, technology assessment, environmental policy, resource management, computer modeling and other selected fields.

For details on curriculum of the master's degree in environmental science and policy and admission requirements, please contact the IDCE office at 793-7201 and refer to the Guide to Accelerated Degree Programs.

Courses

Listing begins on page 198.

INTERNATIONAL DEVELOPMENT AND SOCIAL CHANGE

Undergraduate Program Faculty

Kiran Asher, Ph.D.
David Bell, Ph.D.
Duncan Earle, Ph.D.
Jude Fernando, Ph.D.
William Fisher, Ph.D.
Laura Hammond, Ph.D.

Research Faculty

Cynthia Enloe, Ph.D.
Richard Ford, Ph.D.
Barbara Thomas-Slayter, Ph.D.

Adjunct and Affiliate Faculty

Parminder Bhachu, Ph.D.
Joseph deRivera, Ph.D.
Timothy Downs, Ph.D.
Jody Emel, Ph.D.
Jacqueline Geoghegan, Ph.D.
Beverly Grier, Ph.D.
Donna Hicks, Ph.D.
Douglas Johnson, Ph.D.
Laurence Lewis, Ph.D.
Paul Posner, Ph.D.
Richard Peet, Ph.D.
Dianne Rocheleau, Ph.D
John Rogan, Ph.D.
Paul Ropp, Ph.D.
Valerie Sperling, Ph.D.
Situraman Srinivasan, Ph.D.
B.L. Turner, Ph.D.
Kristin Williams, Ph.D.

Program Overview

In Clark's International Development and Social Change program, you learn from people who are actively engaged in vital world issues, for example, globalization, nationalism, displacement of indigenous people in India, food scarcity in Ethiopia, black social movements in Colombia, and social justice and education in South Africa. The program begins by building a foundation to help you understand and think critically about the social, political, economic and cultural dynamics shaping the world. Courses provide important insights on how the developed and developing worlds are linked historically and at present. Clark University is one of the few universities in the nation that offers a liberal-arts major in international development.

Beyond the classroom—in workshops, panels and informal gatherings—international development and social change majors learn from faculty, as well as from undergraduate and graduate students, with field experience from around the world. You have the opportunity to expand this knowledge with hands-on experience through internships and field research.

As an international development and social change major, you will be part of a diverse student body and discover a program that offers intellectual excitement, insightful perspectives and stimulating ideas. Students explore strategic political action by developing an awareness of the complexities and contradictions of global power relations. You will learn the history of social change around the world from professors who have been involved in that social change in Asia, South America and Africa. International development students become thinkers and doers who are prepared to tackle the challenges of development in the 21st century.

For more information about the undergraduate program in international development and social change, visit our Web site at www.clarku.edu/departments/idce/id/ba.

Major Requirements

The undergraduate major in international development and social change stresses creative, cross-disciplinary approaches to development. A specialization in a particular area deepens your understanding.

The major in International Development and Social Change requires 14 units, as follows:

1. Core Courses (5 units): ID125 Tales from the Far Side: Development and Underdevelopment; a course in development economics; and three additional core courses (one each) in politics of development, resource management, and sociocultural issues.

2. Area of Specialization (4 units): With adviser approval, students select a specialization—such as community-based development, political economy, conflict and development, culture and development, resource management, or gender and development. A minimum of two of these courses must be at the 200-level.
3. Methods and Skills courses (3 units): one course in social science research methods and two courses from the following: computer science, cultural anthropology, cartography, statistics, geographic information systems (GIS), conflict negotiation, or a foreign language at the intermediate level.
4. Internship or Field Research (1 unit): a one-credit internship or field research related to international development. This may be combined with a study-abroad program.
5. Capstone Seminar (1 unit) or Honors Thesis (2 units): this is taken in spring term of senior year to explore advanced topics in international development.

Many students double major in international development and social change and related departments, such as economics, geography, government (especially international relations), psychology and sociology. A major in international development and social change and a minor in one of the related departments or programs, such women's studies, is another popular option. Note that up to two courses are open for counting toward both majors.

Internships and Study-Abroad Options

Internships provide an opportunity to gain insight and experience in development through work in government or nonprofit agencies. Recently international development and social change students have had overseas internships with the Grameen Bank in Bangladesh, the American Jewish World Service in El Salvador, the London Internship Program, and the World Health Organization in Geneva. Other international development and social change interns have worked in the United States on national and international development issues with the Environmental Defense Fund, Grassroots International, Oxfam America, Habitat for Humanity, MassPIRG, Save the Children, Aid to Artisans and Lutheran Community Services Refugee Program.

All international development majors must undertake an internship for academic credit. Internships for credit must be supervised or sponsored by core international development faculty or affiliate IDCE faculty with the approval of your faculty adviser. International development students should register for ID299 the semester during the internship to receive credit. If the internship is during the summer, students should register through COPACE.

For more information, visit www.clarku.edu/departments/idce/id.

Honors Program

The honors program gives students the opportunity to carry out independent research during their senior year. Students must have a 3.5 grade-point average in the international development major to qualify for an invitation to undertake an honors thesis. To graduate with honors, invited seniors must successfully complete a two-semester independent honors project conducted under the supervision of an international development faculty member. A student must declare her/his intention to register for honors work no later than the end of spring semester of the junior year. Successful completion of an honors project will be recognized at Commencement.

International Development and Social Change Minor

This minor consists of six courses, four of which focus on a development theme identified by the student and approved by his/her adviser. The six include one introductory course (ID120, ID125 or ID131), two 100-level courses, two 200-level courses, and one skills course from among those accepted for the international development and social change major. No more than two courses can be an internship or directed study. They will be assessed for equivalence to the 100- or 200-level courses.

Accelerated Degree Program

International development and social change majors who have completed an honors thesis in international development may earn a combined bachelor's and master's degree, with the fifth year tuition free, provided they meet departmental and University guidelines. The accelerated B.A./M.A. in international development and social change allows students to build their analytical skills and pursue a specific area in international development.

Qualified juniors who are interested in pursuing a B.A./M.A. must submit a preapplication by April 1 of their junior year.

B.A./M.A. Program of Study

The international development and social change master's degree requires a minimum of 12 course credits. The B.A./M.A. student enters the graduate year having taken two upper-level courses as well as having completed a two-credit yearlong internship. In the graduate year, for the B.A./M.A. degree, five credits are required core courses and the remaining three are electives reflecting the student's special interest. A typical program for a B.A./M.A. student includes:

- In the senior year, students take two graduate courses related to their interests in international development to be credited toward the M.A. These must include the ID290 Capstone Seminar plus a 300-level course or an approved 200-level course or IDCE314 Research Methods. Seniors must also complete an honors thesis.
- Two credits are earned for yearlong internships or approved research projects (post-B.A.).
- In the graduate studies year, B.A./M.A. students take eight additional courses, including the five required courses:
  - IDCE314 Research Design and Methods
  - IDCE360 Development Theory
  - IDCE361 Program and Project Management
  - IDCE30213 M.A. Research Paper Workshop
  - IDCE30217 Economic Fundamentals for International Development
- Also required are three elective courses, such as:
  - ID266 Principles of Negotiation and Mediation
  - IDCE312 Famine and Food Security.
  - IDCE354 Third World Women and Gender in Economic Development
  - IDCE359 Humanitarian Assistance in Conflict/Postconflict Contexts
  - IDCE369 Religion, Identity and Violence in a Globalizing World
  - IDCE30290 Participatory Research Methods
  - IDCE30291 Qualitative Research Design and Methods

Skills courses may also be taken to fulfill elective requirements.

Courses

Listing begins on page 198.

IDCE GRADUATE PROGRAMS

Department Faculty

William Fisher, Ph.D., *Director*
Kiran Asher, Ph.D.
David Bell, Ed.D.
Halina Brown, Ph.D.
Miriam Chion, Ph.D.
Timothy Downs, D.Env.
Duncan Earle, Ph.D.
Jude Fernando, Ph.D.
Robert Goble, Ph.D.
Laura Hammond, Ph.D.
Eugenio Marcano, Ph.D.
R. Gil Pontius, Ph.D.
Samuel Ratick, Ph.D.
Laurie Ross, Ph.D.

Research Faculty

Cynthia Enloe, Ph.D.
Richard Ford, Ph.D.
Christoph Hohenemser, Ph.D.
Barbara Thomas-Slayter, Ph.D.

Adjunct and Affiliate Faculty

John Baker, Ph.D.
Parminder Bhachu, Ph.D.
Joseph deRivera, Ph.D.
J. Ronald Eastman, Ph.D.
Jody Emel, Ph.D.
Susan Foster, Ph.D.
Jacqueline Geoghegan, Ph.D.
Beverly Grier, Ph.D.
Eric Gordy, Ph.D.
Donna Hicks, Ph.D.
Douglas Johnson, Ph.D.
Laurence Lewis, Ph.D.
Richard Peet, Ph.D.
Paul Posner, Ph.D.
Dianne Rocheleau, Ph.D.
John Rogan, Ph.D.
Paul Ropp, Ph.D.
Robert Ross, Ph.D.
Joseph Sarkis, Ph.D.
Valerie Sperling, Ph.D.
Sitaraman Srivinasan, Ph.D.
Henry Steward, Ph.D.
Mark Tigan, M.P.A.
B.L. Turner II, Ph.D.
Kristin Williams, Ph.D.

Overview

IDCE graduate programs address one of the greatest challenges of the 21st century: sustaining environmental resources while promoting development. To encourage local and national initiatives, IDCE programs present macro- and micro-level perspectives to build a realistic understanding of development in this era of globalization. Using tools designed specifically to strengthen partnerships, organize information, mobilize resources, monitor environmental trends and adapt to change, IDCE graduates advance this meaningful work.

This unique approach builds ownership on local levels and fosters alliances among researchers, community groups, governments and nongovernmental organizations. The resulting partnerships encourage collaborative responses to some of development's most complex problems. Building on 30 years of field experience in North America, Africa, Asia and Latin America, IDCE promotes a more just, equitable and sustainable future through the pursuit of four goals:

- Understanding power relationships
- Building community
- Sustaining the environment
- Adapting tools for social change

IDCE explores alternative approaches to overseas and domestic development through five key concepts:

- Combining theory and practice
- Stressing analytical skills
- Focusing on the sustainability transition
- Creating partnerships
- Linking local and global perspectives

Student-Faculty Research

In their collaborative research projects, students and faculty build upon IDCE's interdisciplinary approach to issues of environment and development. Recent student-faculty projects include land use analysis for the Blackstone River Watershed, EPA-supported research on vulnerability to mercury exposure, resettlement evaluation for the USAID in Ethiopia, greenhouse gas-emission inventory for the City of Worcester, and assessment of impacts of the Talo Dam in Mali for Cultural Survival.

Sponsored Student Research

In recent years, IDCE students have been awarded prestigious fellowships to pursue innovative research. These have included Fulbright Fellowships, David L. Boren Fellowships, Mickey Leland International Hunger Fellowships, Catholic Relief Services Fellowships, Compton Mentor Fellowships, Compton Environment and Sustained Development Fellowships, and the E7 Sustainable Energy Scholarship. Others have received Presidential Management Fellowships.

Program Requirements

Each of IDCE's four graduate programs requires a minimum of twelve graduate course units. These include five required core courses, two skills courses, and five elective courses in the student's field of specialization.

Core courses form a solid foundation, skills courses develop a tool-kit for field work, and electives give flexibility to develop expertise in one area of specialization. The programs culminate in a final project, research paper or critical review paper.

COMMUNITY DEVELOPMENT AND PLANNING

Program Overview

The Community Development and Planning program provides current and up-and-coming community-development practitioners with a strong foundation—based on theory, skill development and practice—to take on the challenges of urban neighborhood revitalization in the United States.

Through course work, field research and internships, this program enables students to better understand the complex linkages between local action and processes of policy making at local, state and national levels. Students learn to critically examine the roles and effectiveness of informal neighborhood organizations, banks, private developers, local nonprofits and government agencies in community development. Graduates gain the expertise to channel private and public community-development funds and programs to address local needs.

Students in this program benefit from a unique interdisciplinary approach to community development that integrates the perspectives and ideas of the other IDCE programs: Environmental Science and Policy, Geographical Information Systems for Development and Environment, and International Development and Social Change.

The Community Development and Planning program offers core courses and hands-on skill development in critical areas such as community-development and planning theory, community-development finance, community-development decision making, nonprofit management, conflict mediation, youth and community development, geographic information systems, and research and project-evaluation methods.

In addition, students participate in field research and internships that allow them to learn directly from neighborhood residents and community-based organizations about their needs, resources and priorities and how to best mobilize local action to improve neighborhood quality of life.

See www.clarku.edu/departments/idce/cp for details about the Community Development and Planning program.

Graduate Requirements

The master's degree in community development and planning requires a minimum of 12 graduate course units. These include five core courses in community development, two skills courses, and five elective courses related to the student's particular interests. An internship with a community organization to provide training in practical skills is strongly recommended. This program culminates with a final research paper or consultancy project.

Required Core Courses (5)

GEOG314 Research Design and Methods
IDCE344 Community Development and Planning Theory
IDCE346 Practicum in Community Development and Planning
IDCE30289 Community Development Finance
IDCE30218 Community Development Decision Making and Negotiation

Skills Courses (Select two)

GEOG360 or IDCE367 Quantitative Modeling
IDCE310 Introduction to GIS
Computers and Quantitative Methods
IDCE331 Risk Analysis and Management
IDCE332 Environmental and Social Impacts Assessment (ESIA)
IDCE357 Research Seminar in Dynamic Environmental Modeling
IDCE336 Decision Methods for Environmental Management and Policy
IDCE366 Principles of Conflict Negotiation and Mediation
IDCE388 GIS and Local Planning
IDCE395 Participation and Environmental Management
IDCE396 Advanced Topics in GIS
Field Research in Youth Development and High-School Transformation

Elective Courses (Select five among skills and elective courses.)

- Globalization: Structure and Dynamics
- Humanitarian Assistance in Conflict/Postconflict Contexts
- Poverty: Social Policy, Immigration and Urban Social Change
- Participatory Tools for Development, Planning and Action
- Youth and Community Development
- Nonprofit and NGO Management
- Urban Transportation: Problems and Prospects
- Urban Economic Geography

Research Opportunities

The George Perkins Marsh Institute sponsors research through its Clark Labs for Cartographic Technology and Geographic Systems and the Center for Community-Based Development (CCBD) on gender, participation and urban neighborhood planning.

Worcester Education Partnership has received an $8-million Carnegie Corporation grant to implement systemic education reform in Worcester's secondary schools. Community Development and Planning students are involved in the research on how high-school students experience components of the secondary-school transformation plan.

Student Opportunities for Internships and Field Research

Students in the Community Development and Planning program have participated in internships and field research, gaining practical experience with nonprofit, grassroots and government organizations. For examples of internships, visit www.clarku.edu/departments/idce/cp/index.shtml.

ENVIRONMENTAL SCIENCE AND POLICY

Program Overview

The environmental field in the 21st century is quickly evolving to respond to complex interdependencies between the natural environment and human development.

Environmental stewardship requires that we not only understand natural processes, but also how societies interact with their physical environments, how scientists and stakeholders work together to explore policy alternatives and how they apply appropriate technologies to ever-changing conditions.

Clark's innovative Environmental Science and Policy master's degree develops students' abilities to integrate natural and social sciences to respond to local and global challenges. This program's expertise in risk and vulnerability assessment, environmental justice, institutional dynamics, watershed stewardship, renewable energy and capacity building resonates worldwide. Current student-faculty research includes health-risk analysis, biodiversity conservation, climate-change vulnerability and adaptation, alternative transportation, and impacts assessment. Classes and experiential learning give students essential skills for analysis, planning, implementation and evaluation.

As a member of a close-knit family of graduate programs, the Environmental Science and Policy program is unique. Students are exposed to multiple perspectives and creative, integrated thinking in the classroom and in research.

Hallmarks of the Environmental Science and Policy program include:

- **A pioneering spirit:** This program has been a leader in understanding the relationships among science, technology, environment and society for three decades. Clark is world-renowned for its work on the human dimensions of global environmental change.
- **Global relevance:** This program covers the globe, with courses, research and field work that include the United States as well as transitional and developing countries. Environmental science and policy students gain practical skills by working on projects in the United States, Latin America, Asia, Africa and Europe.
- **Dynamic faculty-student research:** As the smallest and one of the oldest U.S. research universities, Clark offers elbow-to-elbow research experience with professors who are recognized leaders in their fields.

Environmental Science and Policy graduates are highly sought-after, cross-disciplinary professionals, able to bridge disciplines, interests and cultures to champion more sustainable futures in both developed and developing countries. They work with and between stakeholders to understand needs and priorities; to design and implement solutions that are flexible, cost-effective, and sustainable; and to monitor performance.

Environmental career trends show that employers worldwide seek critical thinkers and doers who champion sustainable solutions that are ecologically responsible, economically rational and socio-politically equitable. It is rare to find a professional with scientific and technical literacy, GIS capability, and knowledge of what it takes to achieve effective stakeholder participation. This program trains a new kind of environmental leader for the 21st century, one who can build bridges among ideas, disciplines, stakeholders and cultures.

Visit the IDCE Web site at www.clarku.edu/departments/idce/environmental science to learn more details about the program.

Graduate Requirements

To be eligible for the environmental science and policy master's degree program, a candidate needs a baccalaureate degree (or equivalent). Domestic or overseas field experience related to environmental issues is highly desirable.

Graduates in all fields are welcome, but preference is given to candidates who have proficiency in one or two areas from the following two groups:

1. Basic and/or applied natural science or engineering (e.g. anthropology, biology, chemistry, computer science, ecology, engineering disciplines, environmental science, epidemiology, geology, mathematics, physical geography, physics, statistics, toxicology), preferably with some social science or policy studies; or
2. Basic and/or applied social science (e.g. economics, international development, international relations, management, human geography, political science, psychology, sociology) with good quantitative skills and preferably some natural science.

Master's Degree Requirements

The master's degree in Environmental Science and Policy requires a minimum of 12 graduate course units. These include five required core courses, two skills courses, and five elective courses to provide breadth and depth. The electives typically focus on a topic reflecting the student's particular environmental interest. The Environmental Science and Policy program culminates with a thesis or critical review paper, based on research participation with program faculty or approved affiliated faculty.

Required Courses (5)

IDCE363 Decision Methods for Environmental Management
IDCE382 Management of Environmental Pollutants
IDCE30287 Fundamentals of Environmental Science
IDCE301 Research Projects
IDCE30209 Interdisciplinary Topics Seminar

Skills Courses (a sampling; 2 required)

GEOG310 Qualitative Research Methods: Skills and Application
GEOG393 Digital Image Processing
GEOG371 Groundwater Hydrology and Management
IDCE310 Introduction to GIS
Computer and Quantitative Methods in Risk Analysis
IDCE332 Environmental and Social Impacts Assessment
IDCE349 Advanced Topics in Spatial Analysis
IDCE352 Technology and Environmental Assessment
IDCE357 Dynamic Environmental Modeling
IDCE366 Principles of Negotiation and Mediation
IDCE367 Quantitative Modeling
IDCE30219 Risk Analysis and Policy Methods
Advanced Image Processing
IDCE30218 Decision Making and Negotiation in Community Development
IDCE388 GIS and Local Planning
IDCE395 Participation and Environmental Management
IDCE30290 Participatory Research Methods

Elective Courses (5)

Elective courses provide students the flexibility of designing much of their course work to suit their own needs and to provide depth in a chosen area of focus. Students may take courses offered by the other three graduate programs in IDCE or in other departments, as approved by the graduate program adviser. These courses might include:

- Applied Ecology
- Limits of the Earth
- Environmental Law
- Corporate Environmental Management
- Watershed Stewardship
- Cancer: Science and Society
- Environmental Toxicology
- Environmental Chemistry
- Economics of Natural Resources
- Urban Ecology
- GIS and International Development
- Community Planning
- Tropical Ecology
- Environment and Development in the Middle East
- Gender, Environment and Development
- Social Movements, Globalization and the State
- Development Theory

Electives may be formal courses or directed research that supports the student's final research project.

Final Research Project

Students are required to complete either a) a critical review paper on a selected topic, comprising analysis, synthesis, interpretation and discussion of the literature, and significant original critical thought; or b) a thesis on a selected topic comprising the same elements as the paper, plus more in-depth original research and fieldwork that contributes new knowledge. The thesis is a preferred option for those considering graduate study in a Ph.D. program once they complete the M.A.

GEOGRAPHIC INFORMATION SCIENCES FOR DEVELOPMENT AND ENVIRONMENT

Program Overview

The master of arts in Geographic Information Sciences for Development and Environment is designed for practitioners in development, conservation, environmental management and planning, who wish to enhance their skills and knowledge in GIS applications. Sponsored jointly by the Graduate School of Geography and International Development, Community and Environment (IDCE) Department, the M.A. degree is equally suited for professionals re-entering the job market and those seeking GIS experience to strengthen their existing careers. Studies focus on applications of GIS skills to spatial analysis for development and environment in industrial and developing regions.

The program emphasizes building the intellectual breadth required to understand development issues and the technical depth required for GIS analysis. Clark is home to IDRISI, the most widely used raster GIS software in the world, so students are exposed to state-of-the-art development in software modules. The combination of GIS with IDCE's expertise in international development, environmental-risk and hazards management make this master's program truly unique.

An additional benefit is a strong relationship between the program and a variety of faculty research projects. Classes and field internships create options that focus on applications of GIS to local and community planning. For example, a Clark initiative in local planning applies GIS to help the City of Worcester to revitalize brown fields.

Most students complete this program in three semesters, although some prefer a four-semester schedule. Exceptionally qualified students may earn the Geographic Information Sciences for Development and Environment degree in a 12-month intensive track. All tracks begin in August.

Graduate Requirements

The master's degree in Geographic Sciences for Development and Environment requires 12 graduate course units. These include five required core courses and seven electives. The program culminates with a project that utilizes GIS to analyze a problem in environment or development. For example, past projects have included "Opium Cultivation and Land Use Change in Northeast Myanmar," "Modeling Land Use and Nutrient Loading for the Onota Lake Watershed" and "GIS Analysis, Monitoring and Modeling of Mangroves in Ecuador."

Required Courses

Prerequisite: proficiency in GIS, either demonstrated in a one-week workshop in August or through Introduction to GIS in the fall term.

IDCE391 GISDE Professional Seminar
IDCE371 Digital Image Processing
IDCE388 GIS and Local Planning
IDCE396 Advanced Topics in GIS
IDCE394 GISDE Research Seminar

Skill Electives

Research Themes in GIS
Computer and Quantitative Methods
Research Design and Methods
Advanced Topics in Spatial Analysis
Advanced Remote Sensing

Policy Electives

At least one elective must be related to policy, such as:

Global Economic Geographies
African Environment and Geographical Implications
Human Dimensions of Global Change
Resource Geography
Watershed Stewardship
Decision Methods for Environmental Management and Policy
Quantitative Modeling
Environment and Development Middle East / North Africa
Geography of Fire
Landscape Ecology

Student Projects

Each student completes a project in which an aspect of GIS analysis is applied to a problem in environment and/or development. Work begins on the project in the IDCE391 seminar and continues in the IDCE394 seminar during the semester of graduation. For the 12-month track, the analysis and summation are carried out in the summer, with formal presentations in August. For the three-semester track, project presentations are made in December. For the four-semester track, graduation is in May.

The GISDE Resource Lab contains:

High performance microcomputers
Large format digitizers
High-resolution color scanner
Large format color printer
Laser and color ink jet printers
GPS receivers
Ethernet connections for Internet access

The lab supports the entire MS Office software package as well as the following GIS and other softwares:

IDRISI
CartaLinx
ArcGIS
SPSS
ArcView
Erdas

Students have access to the resources of the Graduate School of Geography, Clark Labs for Cartographic Technology and Geographic Systems, Center for Community-Based Development, COFERT, The Guy Burnham Map Library and the Jeanne X. Kasperson Library in the Marsh Institute. For more information, see catalog sections "School of Geography," "Marsh Institute" and "Graduate Program and Research Institutes."

INTERNATIONAL DEVELOPMENT AND SOCIAL CHANGE

Program Overview

The master's degree in International Development and Social Change emphasizes the connection between critical thinking and effective action. It is designed for scholars of international development, as well as for present and future practitioners of grassroots, community-based development.

Offering alternatives to centralized planning and implementation, the International Development and Social Change master's program has been a pioneer in participatory development and a leading force to create tools for social change. The challenge for 21st-century development is to promote development and sustain environmental resources through local planning and action. The IDCE participatory approach creates ownership on local levels while fostering partnerships between local institutions and external agencies.

This master's program helps students to reach innovative solutions to development problems by building understanding of the complex causes, influences and implications of poverty, social injustice and conflict. Rooted in the belief that effective approaches merge many disciplines, the master's program in international development employs a cross-disciplinary focus, with faculty from anthropology, economics, environmental sciences, women's studies, geography, history, government and management. Links with collaborating institutions in countries such as Kenya, Nepal, Ghana, India, Senegal and Mexico provide important real-world perspectives and field work opportunities.

The International Development and Social Change M.A. Program has three key elements:

- Challenging conventional ideas about development and seeking innovative alternatives.
- Understanding how the interplay of power relationships gives rise to social injustice and inequity.

- Exploring the linkages between critical thinking and effective development practices at the community, regional, national and global levels.

Courses introduce alternative and traditional theories and provide practical skills to advance professional goals in development. The unique blend of theory and practice enables students to link local planning and action to policy making at different levels. The program also focuses on gender issues and social justice, bridging differences in postconflict areas, building alliances among institutions, and learning from the voices of marginalized people.

Visit the IDCE Web site at www.clarku.edu/departments/idce/id to learn more details about the program.

Graduate Requirements

The master's degree in International Development and Social Change requires a minimum of 12 graduate course units. These include five required core courses, two skills courses, and five elective courses in the student's field of specialization. The international development program culminates in a final research paper.

Through action-oriented, critical studies linking theory and practice, this master's program offers opportunities to specialize in such topics as political economy, conflict and development, culture and development, resource management, community-based development, or gender and development.

Core Required Courses (5)

IDCE314 Research Design and Methods
IDCE360 Development Theory
IDCE361 Development Program and Project Management
IDCE30217 Economic Fundamentals for International Development
IDCE30123 Master's Final Research Paper Workshop

Skill Courses (A sampling, two required)

GEOG393 Digital Image Processing
IDCE310 Introduction to GIS
Computers and Quantitative Methods
IDCE331 Risk Analysis and Management
IDCE332 Environmental and Social Impacts Assessment
IDCE357 Dynamic Environmental Modeling
Principles of Conflict Negotiation and Mediation
IDCE367 Quantitative Modeling
IDCE388 GIS and Local Planning
IDCE395 Participation and Environment
IDCE396 Advanced Topics in GIS
Advanced Image Processing
IDCE30219 Risk Analysis: Policy and Methods
IDCE30290 Participatory Research Methods
IDCE30291Qualitative Research Design and Methods
Participatory Tools for Development, Planning and Action
IDCE30294 Theoretical Perspectives and Practical Decision Making in Development

Elective Courses (Five required)

Students select electives to focus their research and deepen their understanding of one of the following areas: conflict and development, culture and development, political economy, gender and development, resource management, community-based development or geographical information systems.

IDCE Courses

EN101 INTRODUCTORY CASE STUDIES/LECTURE, DISCUSSION

Consists of detailed analysis of three cases that typify the concerns of the environmental science and policy program. These cover the various aspects of environmental and technical risks. Each case entails scientific and technical analysis as well as social and policy considerations. Formal lectures, readings, written assignments and class discussion will be included. Ms. Brown/Offered every year

EN120 DISCOVERING ENVIRONMENTAL SCIENCE/ LECTURE, DISCUSSION

Covers key scientific and technical topics and emphasizes quantitative skills of problem solving. Topic areas include: mass and energy transfer; environmental chemistry; mathematics of growth; risk assessment; water pollution; and air pollution. The course aims to provide a solid foundation in important scientific aspects of environmental problems, complementing policy-oriented courses. Above all the course is designed to make students literate and comfortable with the language used to describe and analyze physico-chemical processes. Study journals and homework problems are used to encourage literacy. Math skills emphasized. Mr. Downs/Offered every year

EN171 INTERNATIONAL PERSPECTIVES ON ENVIRONMENTAL PROBLEMS AND POLICIES/ LECTURE, DISCUSSION

Highlights the scope of major global issues (e.g. climate change and biodiversity conservation), their social and political contexts, and what influences our population, development and environmental-policy choices. Two central themes are used: 1) conflicts of interest over assets, amenity and distribution of costs and benefits, and 2) sustainable development ideas, conflicts and operational processes. The practicalities of solutions such as cultural change, business and trade practices and regulations are explored. Mr. Downs/Offered periodically

EN175 SCIENCE, DECISION MAKING AND UNCERTAINTY/LECTURE, WORKSHOP

Examines decision making under conditions of scientific uncertainty. The goal of the course is to describe: (1) strengths and limitations of scientific analysis in the assessment of environmental and technological issues and (2) methods designed to aid decision making under uncertainty. Initial emphasis is on the structure of scientific knowledge, ways of knowing and types of scientific uncertainty, with examples drawn from particle physics, chemistry, engineering, epidemiology and opinion research. Case studies are discussed of real-world environmental and technological risk-management issues, such as setting EPA standards, Mad Cow disease and global warming. A weekly workshop or laboratory includes practical exercises in statistical treatment of data fitting data to a form, calculation of uncertainty, interpretation of epidemiological data and computer simulations. Fulfills the scientific perspective. Mr. Goble/Offered every year

EN232 CASE STUDIES IN ENVIRONMENTAL ETHICS/SEMINAR

An intensive investigation of a small set of environmental issues selected by the students in consultation with the professor. In recent years, students have chosen to work on such issues as: ski runs vs. eastern old-growth forest on Mt. Wachusett, removing the John Day Dam, ecotourism in Costa Rica, sea turtle preservation vs. GATT/WTO, whaling by indigenous peoples, genetically modified rice, and methane capture technology in the dairy industry. Students may elect to do their research individually or in small groups. Seminar/tutorial format. Major research paper. Mr. Derr/Offered every other year

EN240 ENERGY AND THE ENVIRONMENT/ LECTURE, DISCUSSION

The production and utilization of energy play a central role in modern civilization and constitute an increasing drain on our natural resources. Undesired by-products of large-scale energy usage are becoming more apparent, including local heating of streams and global warming, pollution of the atmosphere and ocean, and real and perceived dangers related to the use of advanced technology. The course explores these environmental concerns in the context of the possibilities and limitations set by physical laws and considers the extent to which science must be involved in their resolution. Prerequisite: two semesters of introductory physics. Mr. Agosta/Offered every other year

EN241/IDCE30241 ENVIRONMENTAL TOXICOLOGY/LECTURE, DISCUSSION

Focuses on the assessment of hazardous properties of toxic chemicals in the environment and on development of public-health policy. Covers the principles of absorption, distribution, excretion and toxic action of chemicals on humans; animal testing; and human epidemiology. Also covers assessment of public-health risks on the basis of animal and human test results, development of standards for air and water contaminants, and uncertainty in regulating hazardous chemicals. Prerequisite: one semester of organic chemistry or permission of the instructor. Ms. Brown/Offered every other year

EN246/IDCE30246 CANCER: SCIENCE AND SOCIETY/SEMINAR

Focuses on one of the most dreaded diseases in modern society: cancer. Examines the geographic distribution of cancer in this country and the world, factors contributing to its formation and the biological mechanisms underlying cancer. Concentrates on screening techniques for detecting cancer-causing agents and on methods for assessing and regulating cancer risks and on case studies of selected human carcinogens as well as social and political controversies surrounding this disease. Ms. Brown/ Offered every year

EN251/IDCE30251 LIMITS OF THE EARTH/ SEMINAR

Examines a variety of perspectives on the global environment and economic development, such as the biological concept of carrying capacity and economic concepts of growth. Topics covered include population growth, food production, energy and other resources, and critical chemical cycles. Attention is paid to the national and international institutions, which set policies on these issues. Central to the course is a critical analysis of concepts of sustainable development. The course is conducted as a seminar and also emphasizes quantitative tools in data analysis and systems modeling. Mr. Goble/Offered every year

EN253/IDCE30216 SUSTAINABLE FISHERIES MANAGEMENT/SEMINAR

Fisheries represent an interaction between human systems (fishing communities and their cultural, economic, institutional, and legal settings) and biological systems (the commercially desired fish species and the ecosystem which supports them). In much of the world, including New England, current fishing practices appear unsustainable. This seminar uses dynamic simulations models and games with role-playing to understand the functioning of the human and biological systems. Various gaming exercises help interpreting the historical and contemporary debate on the sustainability of fishing practices. Students' work focuses on ecological issues, fishing communities, and policy issues. Mr. Goble/Offered every other year

EN256/IDCE357 RESEARCH SEMINAR IN DYNAMIC ENVIRONMENTAL MODELING

Much environmental assessment, planning and regulation is now based on dynamical modeling (computer models that simulate pollution transport leading to human exposures and the potential consequences of such exposures over time or which simulate important aspects of ecological systems). The effective use of appropriate models and the critical interpretation of model results are key activities in environmental policy. In this seminar we will survey common applications of models, address key issues in the interpretation of model results, install, test and apply models that have been used in recent public-policy evaluations, and perform some model construction. Basic computer literacy will be assumed and individually performed computer projects will be a substantial portion of the required work, but extensive computer-science study is not a prerequisite. Mr. Goble/ Offered every other year

EN261/IDCE363 DECISION METHODS FOR ENVIRONMENTAL MANAGEMENT AND POLICY/ LECTURE, DISCUSSION

Information on environmental-impact assessments needs to be systematically organized and analyzed to be useful in the decision-making process. This course provides a survey of methods that are currently used to aid environmental makers (who include policy makers, environmental managers and affected populations). Covers techniques such as: decision analysis, benefit/cost analysis, multicriteria evaluation, multiobjective analysis, multiattribute utility theory, the analytical hierarchy process, and spatial-analytical methods using geographical information systems. These methods will be evaluated with respect to their theoretical foundations, systems formulation and appropriate application. A critical evaluation of the strengths and weaknesses of these methods will also be discussed. Seniors by permission only. Mr. Ratick/Offered every year

EN265 RISK ANALYSIS: POLICY AND METHODS/ SEMINAR

Discusses policy goals that have been advocated for risk-management decision making on environmental and occupational chemical exposures-including equity in the distributions of risks and benefits, and appropriate priority setting for the efficient use of public and private resources. Students apply quantitative-analysis techniques to risk/policy problems through: relevant sets of categories for analysis, reflecting both value and causal mechanism considerations; mechanistic dynamic modeling of physical/biological processes, analysis of distributions-including but not limited to fitting distributions to data-in order to elucidate both variability and uncertainty; and basic use of spreadsheets. Mr. Hattis and Mr. Goble/Offered periodically

EN276/IDCE30276 ENVIRONMENTAL LAW/ LECTURE, DISCUSSION

A survey course in environmental law, with special emphasis placed on the practical skills necessary to understand and apply environmental laws and regulations. Topics include the history and development of modern environmental law, basic administrative law principles, water-pollution control, wetlands protection, environmental-impact review, solid- and hazardous-waste management, disposal, and site remediation, plus land-use controls and "takings" issues. Covers the major federal environmental statutes and draws upon Massachusetts law for examples of state and municipal initiatives. Staff/Offered every year

EN282/IDCE382 MANAGEMENT OF ENVIRONMENTAL POLLUTANTS/SEMINAR

Studies approaches to regulating hazardous chemicals in air, water and food. The course is built around the three general types of interventions that have been practiced by the regulatory agencies over the last three decades: shifting to safer technologies; issuing licenses to pollute in the form of industrial emission permits; and setting standards for air, water, and food contaminants. The scientific controversies in setting standards and issuing permits are presented vis-à-vis the legislative mandates, the need for benefit-cost accounting and the scientific uncertainty. The strengths and weaknesses of command-and-control system versus the incentive-based system with regard to industrial enterprises are also discussed. Emphasizes recent efforts to decrease government involvement in corporate environmental management and to shift towards an incentive-based regulatory system. While focus is on public policies in the United States, international comparisons with western European and eastern European countries are included. The course has a seminar format, with weekly student presentations and class discussions. Seniors by permission only. Ms. Brown/Offered every year

EN286/IDCE30286 SUSTAINABILITY, INSTITUTIONS AND POLICY MAKING/SEMINAR

The globalization of commerce, increasing access to information and growing threats to the earth's ecosystems require new ways of organizing the society and the marketplace in order to pursue environmental sustainability. Some call it "Natural Capitalism." This advanced seminar examines the roles of major types of institutions in implementing the agenda for sustainable development: the business sector, government, nongovernmental organizations and financial institutions. We discuss matching of policy instruments with policy objectives, including management of natural resources, technological innovation, pollution prevention and system innovation. We examine partnerships among the key institutions as the possible vehicle for change. International considerations are included. The readings consist of both theoretical works and empirical case analyses. Ms. Brown/Offered every year

EN290 CAPSTONE RESEARCH/SEMINAR

A required course for senior environmental science and policy majors, this seminar offers an opportunity to integrate the strands of the environmental science and policy major. The product will be a completed research project, a research proposal for an honors project or a research proposal for a master's thesis. Specific topics for investigation are chosen largely on the basis of student interest from a broad array including global environment threats, energy and other resource issues, community brownfields, and technological risk assessment and management. Unlike a regular course, student presentations constitute a major portion of class meetings, with the instructor as a facilitator of discussion and as a general resource for the group. Students must be seniors or second-semester juniors and must have completed a substantial fraction of their major requirements. Mr. Goble/Offered every year

EN297 HONORS THESIS

EN298 INTERNSHIPS

Contact the IDCE office for internship proposal form. Staff/Offered every semester

EN299 DIRECTED STUDY

Staff/Offered every year

ID120 INTRODUCTION TO CULTURAL ANTHROPOLOGY/LECTURE, DISCUSSION

Provides an introduction to social/cultural anthropology's theories and methodologies through study of its principal medium of analysis, the ethnography. Students will explore several different types of cultural study: hunter-gatherers in Central Africa, gender relations in a Middle Eastern society and contemporary problems in American inner cities. Anthropological approaches to study of power, identity, social structure, religion, ethnicity, economics and development will also be discussed. Students learn the methods of anthropological research first-hand through conducting their own field-work projects.
Ms. Hammond/Offered every year

ID125 TALES FROM THE FAR SIDE: DEVELOPMENT AND UNDERDEVELOPMENT/LECTURE, DISCUSSION

Discussions of geopolitics invariably refer to the problems of Third World (under) development. What is so compelling about the idea of development? Why does it ail much of the so-called Third World? What are some of the solutions to development dilemmas-neoliberal market reforms or attention to women, ethnic groups and other heretofore marginal issues such as the environment? Or is the development enterprise fundamentally flawed as some postcolonial scholars claim? This course introduces students to key histories, concepts and debates in international development through critical and analytical engagements with fiction, films and theoretical literatures on the subject. Ms. Asher/Offered every year

ID131 LOCAL ACTION, GLOBAL CHANGE/ LECTURE, DISCUSSION

Introduces students to activism in a broad sense: as both a tool for political action and a mechanism for social and/or economic change. International and community development are discussed as forms of activism. Texts focus on activism not only as it is understood and practiced in the United States, but also as it is found in other parts of the world. This includes grassroots movements against the establishment of dams in India and transnational networking of environmental, women's-rights and human-rights activists. In addition, globalization is considered from an activist perspective-both positive and negative approaches to globalization are examined. Religious-based terrorism is also considered as a form of extreme activism, which is in many ways a reaction to perceived injustice, oppression and lack of alternatives. Students participate in a project at the community or wider level in order to learn about how activism works practically. Students will experience first-hand the opportunities and challenges to affecting change, protecting human rights or raising public awareness. Mr. Bell/Offered every year

ID170 ECOLOGY AND ECONOMY IN THE TROPICS/LECTURE, DISCUSSION

In the ecological conditions of the tropics, how can we reduce hunger and improve economic conditions sustainably? Examines how economic management in tropical ecosystems interacts with cultural history, natural resources, economic theory, and international institutions. Classroom discussions focus on readings, while each student may focus on a topic of individual interest in course projects. Mr. Pontius/Offered periodically

ID174 GLOBALIZATION IN ENVIRONMENTAL JUSTICE/LECTURE, DISCUSSION AND FIRST-YEAR SEMINAR (ALTERNATE YEARS)

Integrates ecology and political economy from local to global scale through case studies. Starts from a view of people in environmental "hot spots," following links to the world economy and planetary ecosystems. Explores connections of international, environmental and economic policy, with everyday realities and possible ecological futures of people from the Amazon rain forest to Worcester. Offered as a first-year seminar (fulfills the comparative perspective and verbal-expression requirement) and lecture course (fulfills the comparative perspective) in alternate years. Ms. Rocheleau/Offered every year

ID176 COMPARATIVE ECONOMIC SYSTEMS/LECTURE, DISCUSSION

Examines variety of developed market economies and transitional and developing economies. Topics include Japan's industrial policy and business groups, Germany's social market economy and codetermination, Sweden's welfare state and labor unions, economic reforms in China and Russia and economic development in Korea. Prerequisite: ECON010. Staff/Offered every year

ID182 ARE WE MODERN YET?/FIRST-YEAR SEMINAR

This seminar asks what it means for places and peoples to be modern. We begin by exploring when and where the imperative toward modernity began. The class examines the economic, political and cultural dimensions of modernity. We question the Eurocentric ideas that claim that modernity was a western enterprise exported to the rest of the world. Next colonialism, nationalism and Third World development are examined as specific projects of modernity. Examples from Latin America and the Caribbean will help focus the discussions for this section. Finally, we engage current debates about the projects of modernity and ask: Have modern forms of knowledge and institutions borne out their promise? Or is modernity in crisis? Are we moving toward a postmodern era? Throughout the seminar we will highlight how certain notions of race and gender shaped ideas about modernity. Students in the International Studies Stream will be given first preference to enroll in this seminar. Others will be admitted if spaces remain. Satisfies the historical perspective. Corequisite: IDND066 Global Society. Ms. Asher/Offered every other year.

ID190/IDCE310 INTRODUCTION TO GIS/LECTURE, LABORATORY

Introduces GIS as a data management, analysis and mapping tool. Stresses fundamental logic and scope of problem solving using raster and vector systems. Although the course is computer oriented, no programming is involved. Graduate students may receive credit for this course. A formal-analysis course. Counts as skills course or core course in mapping sciences/spatial analysis in geography major.
Mr. Eastman, Mr. Marcano/Offered every semester

ID209/IDCE354 BEYOND VICTIMS AND GUARDIAN ANGELS: THIRD WORLD WOMEN, GENDER AND DEVELOPMENT/SEMINAR

How did Third World women and gender concerns enter economic-development discourses? How have Third World women and gender been conceptualized within development practices? In turn, how have feminist theories about women and gender shaped economic development discourses? In exploring these issues this graduate seminar will eschew the divide between theory and praxis that plagues development literature. Ms. Asher/Offered every year.

ID213/IDCE313 LATIN-AMERICAN POLITICS/ LECTURE, DISCUSSION

An introduction and an overview of the key economic and political issues confronting Latin America today: economic development and social inequality, international debt, the breakdown of democracies as well as transitions from authoritarian rule, revolutions, and the role of working-class, women's, peasant and ethnic movements. We will draw on the analytical perspectives of political economy and cultural politics to develop a nuanced and self-reflexive understanding of the complex realities of Latin-American politics. Ms. Asher/Offered periodically

ID218/IDCE318 SEMINAR IN PHYSICAL ENVIRONMENT AND DEVELOPMENT/SEMINAR

The world is changing more rapidly than at any time in history. This course reviews patterns of change in the Third World and examines the role of environment and resource management in development. In-depth case studies are developed. Permission of instructor required. Mr. Lewis/Offered every other year

ID240/IDCE340 HUMAN RIGHTS IN INTERNATIONAL POLITICS/LECTURE, DISCUSSION

Focuses on the cultural context of human rights in order to address three important concerns: How to make human rights relevant in the every day lives of people, especially those outside the industrialized West for whom the international human-rights agenda smacks of cultural imperialism. Bringing human-rights concerns into the debate on the meaning of political, economic and social development. Understanding the complexities of and obstacles to achieving effective international cooperation and action in support of an inclusive human-rights agenda. Follows a lecture discussion format. Case studies will be used to illustrate the theoretical arguments developed in the course, while simulation and role-playing exercises will help us understand the difficulties inherent in coordinating international human-rights efforts. Staff/Offered periodically

ID245/IDCE337 CULTURE, POLITICS AND INTERNATIONAL DEVELOPMENT/LECTURE, DISCUSSION

Examines the interplay of culture and politics with international-development practices in an era of increasing globalization. Designed to encourage students to explore recent insights into the workings of discourse and power, and to examine how we can relate, in both theory and practice, these insights to processes of development and resistance to development in the Third World. Considers specific cases and historical processes to understand the effects on local communities of specific development interventions. Mr. Fisher/Offered periodically

ID251 NONGOVERNMENT ORGANIZATIONS: CATALYSTS FOR DEVELOPMENT/SEMINAR

Many practitioners and theoreticians, disillusioned with governments in the development process, propose building nongovernment organizations (NGOs) as development catalysts. This seminar explores the proposal in light of the difficulties and progress NGOs have experienced. Staff/Offered periodically

ID253/IDCE373 SOCIAL MOVEMENTS, GLOBALIZATION AND THE STATE/LECTURE, DISCUSSION

The emergence of global networks or transnational alliances among local, regional and national social movements, international nongovernmental organizations and advocacy groups has been one of the most politically influential aspects of globalization. This course examines what is new about contemporary social movements, the nature of their transnational alliances, and their potential to transform the way states and citizens relate to one another and to the international political arena. The contested nature of civil society, the uneven influence of globalization processes, and changes in the contexts within which local communities and grassroots groups operate are explored through studies of movements concerned with the environment, human rights, development and women. Mr. Fisher/ Offered every other year

ID256 STRUGGLE AGAINST POVERTY/LECTURE, DISCUSSION

Considers worldwide definitions of poverty, recent trends, causes and effectiveness of different approaches to ameliorate poverty. The course will examine poverty and inequality in a North-South context, taking into account the complex political and cultural issues and perceptions of poverty and wealth around the world. As a final project, each student will prepare a proposal, policy or project designed to alleviate poverty in a specific setting. Staff/ Offered periodically

ID259/IDCE369 RELIGION, IDENTITY AND VIOLENCE IN A GLOBALIZING WORLD/LECTURE, DISCUSSION

Examines the nature of religion and the interconnections among religious identity, political violence, and globalization in the contemporary world. It will examine conflicts that arise between groups with different religious identities as well as conflicts between religions and secularization. It will consider how globalization has failed to satisfy so many people in the world, why religion has been raised as an alternative, and why the religious rejection of secularization has been so violent. Mr. Fisher/ Offered periodically

ID260/IDCE367 QUANTITATIVE MODELING/ LECTURE DISCUSSION

Investigates the quantitative and qualitative potential of using mathematical computer models to guide policy in human/environment systems. Students learn to think with a systems perspective while translating their own conceptual models to mathematical models to computer models. Includes lab sessions in the computer room and lectures/discussion in the classroom. Culminates in written and verbal presentations of student projects. Students will gain technical proficiency in Excel and other software designed for sustainability analysis. Students can apply what they have learned in calculus and statistics. Prerequisites are MATH121 or MATH125 or graduate standing or permission. Mr. Pontius/ Offered every year

ID262/IDCE312 FAMINE AND FOOD SECURITY/SEMINAR

Access to food is a vital concern not only for many poor countries, but also for poor sections of wealthier nations. Food insecurity is a major obstacle to development throughout the world and can lead to environmental degradation, high morbidity, political instability and conflict. Famine, a condition of severe food insecurity, is often the result of a complicated mix of natural and human-generated factors. This class will consider famine and food (in)security from anthropological, sociological, political and economic perspectives. Case studies will include Africa, Asia and Western countries. The relation between food security and development efforts as the bridge between famine relief and development work, which promotes sustainable food security, will be considered. Ms. Hammond/Offered periodically

ID264/IDCE30222 ADVANCED TOPICS IN DEVELOPMENT THEORY

This seminar provides students with an opportunity to engage in detailed in-depth study of some classical theorists of modernity and development. It aims to establish firm theoretical and textual foundations for the future study of politics, economics, culture and social relations related to "third world development." Topics vary. The theme of the Fall 2004 seminar is: Conversations with the Ghost of Marx. Open to undergraduates with permission. Staff/Offered periodically.

ID266 PRINCIPLES OF NEGOTIATION AND MEDIATION: AN OVERVIEW OF CONFLICT RESOLUTION APPROACHES

Offers an overview of the principles of conflict resolution that can be applied internationally as well as interpersonally. A general framework for the understanding of conflict is presented that includes: power-, needs-, interest-, and relationship-based conceptualizations of conflict resolution. Gives students a theoretical as well as practical experience of conflict. It explores some of the psychological obstacles that impede the resolution process and engages in a number of experiential exercises that help the student develop the interpersonal skills needed to transform conflict relationships. Staff/Offered every year/fall semester

ID276/IDCE376 SPATIAL DATABASE DEVELOPMENT

Examines the procedures and technologies used for spatial database development in support of Geographic Information Systems (GIS). Topics covered include geodesy and spatial georeferencing, the Global Positioning System (GPS), control and detail surveys, plane surveying, photogrammetry and topological digitizing. Mr. Marcano, Mr. Eastman/Offered every year

ID277/IDCE377 GENDER, ENVIRONMENT AND DEVELOPMENT/SEMINAR

Considers the gender division of control, responsibility, knowledge, labor and benefits in the definition, use, management and protection of natural resources in developing countries. Readings, lectures and discussion focus on the distinct perspectives and concerns of women and men as actors in natural-resource use and management and in local, regional and global ecological transformations.
Ms. Rocheleau/Offered every other year

ID285/IDCE375 GENDER AND GLOBAL CHANGE/LECTURE, DISCUSSION

Explores gender as a variable shaping people's roles, responsibilities, obligations and opportunities across cultures and nations, with particular attention to Third World societies; analyzes transformations taking place in gender roles, relations, et al, in the process of globalization; and clarifies approaches and identifies tools for socioeconomic and gender analysis in the context of participatory research and community empowerment. The course focuses on theoretical questions and policy issues, explores methods of gender analysis for research and considers gender-sensitive strategies for alleviating poverty, generating income and empowering disadvantaged social groups. Staff/Offered every other year

ID287/IDCE381 POLITICS AND POWER IN THIRD-WORLD SOCIETIES/LECTURE, DISCUSSION

Examines the evolving nation-state in the Third World, connections between colonialism and Third World political patterns, interaction between politics and internal economic and social forces, as well as the political impact of ideologies. Analyzes the politics of such groups as the landless, urban poor and women; as well as ethnic, religious, clan or caste groups. Examines patron-client relations, political parties, self-help associations and peasant mass movements for their roles in socioeconomic and political change. Staff/Offered periodically

ID289/IDCE389 ADVANCED DEVELOPMENT POLICY/SEMINAR

A research seminar for students with backgrounds in development theory. Examines recent tendencies in development, focusing on the rise of neoliberalism as a hegemonic discourse. Critically examines shifts in World Bank thinking from basic needs to export orientation. The seminar uses recent changes in postapartheid South Africa as a case study.
Mr. Peet/Offered every year

ID290 SENIOR CAPSTONE SEMINAR

Designed to provide senior international development and social change majors and students entering the B.A./M.A. program the opportunity to apply their undergraduate training to some of the main contemporary and cutting-edge themes in international development, as well as prepare them for further work (either advanced study or entry to the job market) in international development. Themes studied include globalization as it relates to international development, refugees and forced migration, human rights, environmental protection, implications for development of the spread of religious-based extremism, food security, foreign policy and humanitarian aid. Staff/Offered every year

ID291/IDCE30297 REFUGEES AND FORCED MIGRATION/ SEMINAR

"Forced migration" is a term used to describe the process by which people flee political, religious or social persecution; war or other civil disturbance; natural disasters or environmental causes including famine; and the impacts of development efforts. Forced migrants include refugees, internally displaced persons and resettled or expelled persons. The presence of large numbers of forced migrants may provide not only obstacles and challenges to development, but can also present opportunities for meeting development goals. This seminar examines the causes of forced migration, methods used to respond to such migration by both hosts and migrants themselves, solutions to forced migration and implications for development processes in areas affected by forced migration. Students are introduced to migration theory and practice through anthropological and other social science analysis, legal instruments, policy documents and case studies of the lives of forced migrants and individual assistance operations. Open to graduate students. Undergraduates may register with instructor's permission. Ms. Hammond/Offered periodically

ID293/IDCE317 ADVANCED TOPICS IN INTERNATIONAL RELATIONS/SEMINAR

Focus changes with each offering, depending on faculty interest. Recent topic: development, underdevelopment and the causes of internal conflict. Open to juniors and seniors. Staff/ Offered every year

ID294/IDCE395 PARTICIPATION AND ENVIRONMENTAL MANAGEMENT/LECTURE, DISCUSSION

Focuses on community-based participation as a means to plan and implement sustainable practices. Examples of local resource user systems are investigated to evaluate how practices of individual managers in the Third World—farmers, herders, fishermen—impact the environment. Staff/Offered every year

ID296/IDCE388 GIS AND LOCAL PLANNING/ SEMINAR, PROJECT

Provides field training with Global Positioning System (GPS) receivers, and explores issues and procedures involved in the application of GIS to local government and land-use planning. Develops hands-on familiarity with Arc/Info vector-based system and its application in database development (data conversion), routine data management and planning. Prerequisites: ID190 or permission.
Mr. Marcano/Offered every semester

ID297 HONORS THESIS

Staff/Offered every semester

ID298 INTERNSHIP

Contact the International Development, Community and Environment office for internship proposal forms. Staff/Offered every year

ID299 DIRECTED STUDY

Students design an independent research course in conjunction with a professor.
Staff/Offered every year

IDCE300 SOCIAL ANALYSIS AND ACTION—NORTH AND SOUTH/SEMINAR

Focuses on a critical concern for this century—the enduring inequalities that plague much of the world's population. With the scale of human poverty increasing, discrimination in all forms—whatever their basis—bear close examination. This course in social relations analysis explores the patterns and trends creating and maintaining disadvantage; it identifies approaches to social impact assessment (SIA) and enables students to work in teams to assess the structures, processes and politics of disadvantage in a specific social system. Staff/ Offered every other year

IDCE301 RESEARCH PROJECTS

Research Projects Covers major topics in research design and methodology for the student's final project (paper or thesis): Problem definition, research questions, hypothesis, sampling, survey design and data collection techniques, data analysis and interpretation. Also includes exercises in writing grant proposals, articles and reports, carrying out literature reviews, and presentation skills. Staff/Offered every year

IDCE331 RISK ANALYSIS AND MANAGEMENT/ LECTURE, DISCUSSION

Draws together disparate theories and methods for risk analysis of health, environmental and technological problems. Includes dose-response calculations, exposure assessment, modeling, fault-tree analysis, uncertainty and risk communication. Covers intermediate statistics, Monte Carlo methods and forecast evaluation. Developed and developing country case studies will be compared. Mr. Downs/Offered periodically

IDCE332 ENVIRONMENTAL AND SOCIAL IMPACTS ASSESSMENT (ESIA)/SEMINAR

Beginning with the U.S. context in Part 1, we explain the fundamentals of impact studies, including basic documents, required processing for documentation, and agency and public involvement in the assessment process. We cover key elements of impact analysis within categories including land use, economic factors, air quality, historic resources, wetlands and wildlife. An emphasis is placed here on which indicators of impact are used for each category and how they are measured. In Part 2, turning to developing country contexts, we discuss appropriate methodologies, needs and challenges. Case studies are used extensively for discussion. The Integrated State of the Environment (ISoE) reporting method for policy making is used in Part 3 to assess the state of an environment and the consequences of development policies. Mr. Downs/Offered every year

IDCE334 PLANNING AND ZONING FOR COMMUNITY DEVELOPERS

This course introduces students to the history, theories and principles of urban and regional planning. It explores planning tools, such as comprehensive planning and zoning, and their implications for the management of public resources. Staff/Offered every year.

IDCE344 COMMUNITY DEVELOPMENT AND PLANNING THEORY/SEMINAR

Explores the various theories, debates and strategies regarding the development of urban communities. Students analyze and critique traditional and emerging community-development frameworks, strategies and tools. Local community-development practitioners present a field perspective. Required for community development and planning program. Ms. Ross/ Offered every year

IDCE346 PRACTICUM IN COMMUNITY DEVELOPMENT AND PLANNING

Engages students to work as a team on a critical community-development project. Students gain skills in field research, applied qualitative and quantitative data analysis, multidisciplinary teamwork, negotiation with clients and writing professional reports. Practicum clients have included the Worcester Public Schools, the City of Worcester Executive Office of Neighborhood Services and several community-develoment corporations. Ms. Ross/Offered every year

IDCE349 ADVANCED TOPICS IN SPATIAL ANALYSIS/SEMINAR

Explores spatial statistics and spatial decision models. The spatial statistics part of the course focuses on point, block and global estimation, fitting variogram models, kriging and spatial simulation. The prescriptive modeling part will focus on location/allocation-based decisions models including private- and public-sector facility location problems and land-allocation models. The topics covered are closely linked to the underlying spatial analytic methodologies used in, and often illuminated by examples developed with, Geographic Information Systems (GIS). The spatial statistics module in the IDRISI GIS will be used. Runs on the "Socratic" method with some high-tech twists. Students are assigned a topic per week to prepare material and lead discussion. Pass/fail. Grading is based on class participation. Mr. Ratick/Offered every semester

IDCE352 TECHNOLOGY AND ENVIRONMENTAL ASSESSMENT SEMINAR

A survey of analytic techniques used in evaluating environmental conditions and the impacts of technology. These techniques consist of formal methods such as cost-benefit, risk-benefit, cost effectiveness and decision analysis. They also include methods used to elicit human judgement and behavioral responses in evaluating complex environmental and technical systems. Draws on case studies and teaches students to make both quantitative and qualitative assessments. Mr. Ratick/ Offered every year.

IDCE354 BEYOND VICTIMS AND GUARDIAN ANGELS: THIRD WORLD WOMEN, GENDER AND DEVELOPMENT/SEMINAR

How did Third World women and gender concerns enter economic-development discourses? How have Third World women and gender been conceptualized within development practices? In turn, how have feminist theories about women and gender shaped economic development discourses? In exploring these issues, this graduate seminar will eschew the divide between theory and praxis that plagues development literature. Ms. Asher/Offered every year

IDCE356 WATERSHED STEWARDSHIP/SEMINAR

This course explores existing knowledge from development and environment literature that sheds light on the challenges of watershed stewardship. We seek to combine theoretical concepts and case study experiences to inform an approach that recognizes watersheds as socioecological systems. Traditional knowledge has been broken up into social science (including anthropology and economics) and natural science (e.g. hydrology and ecology), leading to disparate perspectives of watersheds and priorities for development and conservation. How do we integrate these different perspectives? What theories and concepts enlighten or obscure the challenge of "sustainable watersheds"? What practices exist and what can we learn from experiences around the world? Knowledge gaps, needs, diverse cultural contexts, barriers to multidisciplinary knowledge integration are all discussed. Practical skills are also introduced, for example, how to choose the best management plan and put it into practice. Mr. Downs/Offered every year.

IDCE358 ADVANCED TOPICS FOR INTERNATIONAL DEVELOPMENT

Topics vary. Staff/Offered periodically

IDCE359 HUMANITARIAN ASSISTANCE IN CONFLICT/POSTCONFLICT

In developing countries, conflict is often primarily a result of competition over access to scarce resources. Attempts to improve people's access to resources can have both constructive and harmful implications for reconciliation and peace-building processes. Interpersonal and inter-group tensions can impact the design and delivery of assistance long after the violence has ended. This course will explore the intricacies of providing humanitarian and development assistance in conflict and post-conflict situations. It will examine the practical aspects of working in conflict zones and of providing assistance to people who have been affected by war: the displaced, victims of violence, the traumatized, and others who live in environments made insecure by conflict.
Ms. Hammond/Offered every year

IDCE360 DEVELOPMENT THEORY

An interdisciplinary graduate seminar, which provides a critical overview of classical and contemporary theories of development by introducing students to writings on development across many disciplines (political economy, anthropology, geography, sociology, feminist theory). The seminar encourages students to think historically, politically and analytically about the multiplicity of development processes and the complex relations of power that underlie them. Ms. Asher/Offered every year.

IDCE361 DEVELOPMENT PROGRAMS AND PROJECT MANAGEMENT/SEMINAR

Explores relationships between development theory and project implementation and issues of program and project management. Topics include project design, implementation, management, budget monitoring, scheduling and evaluation. Focuses on problem identification, developing project proposals, designing environmental and social-impact assessments and creating evaluation frameworks. Emphasizes case studies. Mr. Fisher/Offered every year

IDCE362 BEHAVIOR AND DISTRIBUTION OF ENVIRONMENTAL POLLUTANTS/SEMINAR

Provides simple techniques for estimating how chemicals will distribute in environmental media (air, water, soil and biota), where they accumulate, how long they persist, and how this leads to human exposure. Gives examples of simple calculations, includes links to Web sites for models and access to chemical data. Instead of just focusing on specific compartments, such as the atmosphere or specific substances, such as PCBs, this course presents the bigger picture of how organic chemicals behave in our total environment. Mr. Downs/Offered periodically

IDCE363 DECISION METHODS FOR ENVIRONMENTAL MANAGEMENT/LECTURE, DISCUSSION

Information on environmental impact assessements needs to be systematically organized and analyzed to be useful in the decision-making process. This course provides a survey of methods that are currently used to aid environmental makers, which includes policy makers, environmental managers and affected populations. Covers techniques such as decision analysis, benefit/cost analysis, multicriteria evaluation, multiobjective analysis, multiattribute utility theory, the analytical hierarchy process, and spatial analytical methods using geographical information systems. These methods will be evaluated with respect to their theoretical foundations, systems formulation and appropriate application. A critical evaluation of the strengths and weaknesses of these methods will also be discussed. Mr. Ratick/Offered every year.

IDCE364 SEMINAR ON MONITORING AND EVALUATING DEVELOPMENT PROJECTS

Reviews the growing literature relating to the theory and methods of evaluation to learn from mistakes of past development projects in order to design more effective ones in the future. Participants think through the implications of the review in evaluating development projects of their own choice. Staff/Offered periodically

IDCE366 PRINCIPLES OF NEGOTIATION AND MEDIATION: AN OVERVIEW OF CONFLICT RESOLUTION APPROACHES

Offers an overview of the principles of conflict resolution that can be applied internationally as well as interpersonally. A general framework for the understanding of conflict is presented that includes: power-, needs-, interest-, and relationship-based conceptualizations of conflict resolution. Gives students a theoretical as well as practical experience of conflict. It explores some of the psychological obstacles that impede the resolution process and engages in a number of experiential exercises that help the student develop the interpersonal skills needed to transform conflict relationships. Ms. Hicks/Offered every year/spring semester

IDCE382 MANAGEMENT OF ENVIRONMENTAL POLLUTANTS/SEMINAR

Studies approaches to regulating hazardous chemicals in air, water and food. The course is built around the three general types of interventions that have been practiced by regulatory agencies over the last three decades: shifting to safer technologies; issuing licenses to pollute in the form of industrial emission permits; and setting standards for air, water and food contaminants. The scientific controversies in setting standards and issuing permits are presented vis-à-vis the legislative mandates, the need for benefit-cost accounting and the scientific uncertainty. The strengths and weaknesses of command-and-control system versus the incentive-based system with regard to industrial enterprises are also discussed. Emphasizes recent efforts to decrease government involvement in corporate environmental management and to shift towards an incentive-based regulatory system. While focus is on public policies in the United States, international comparisons with Western European and Eastern

European countries are included. The course has a seminar format, with weekly student presentations and class discussions. Ms. Brown/Offered every year

IDCE385 Research Themes in GIS

IDCE391 GISDE Professional Seminar

Required for M.A. in GIS for Development and Environment. The seminar is restricted to GISDE M.A. students and focuses on applications of GIS and formulation of the research proposal. Examines applications of GIS to environment and development. Mr. Marcano/ Offered every year

IDCE392-393 GISDE Research Seminar

Restricted to students of M.A. in GISDE. Students work with the advisor on a research project. This is for students who opt to focus extra effort on the Masters research project. Staff/Offered every semester

IDCE394 GISDE Research Seminar

One credit is required for M.A. in GIS for Development and Environment. The seminar is restricted to GISDE M.A. students and focuses on the research project. Staff/Offered every semester

IDCE396 Advanced Topics in GIS

Covers major research and application issues in GIS. Topics include geodesy, projections, change and time series analysis, error sources, assessment and propagation, analysis under conditions of uncertainty and multicriteria and multiobjective decision making. Prerequisite: GEOG190 and permission of instructor. Mr. Eastman/Offered every year

IDCE397 Master's Thesis

Master's degree candidates may register while working on research for their thesis or published paper. Staff/Offered every year

IDCE398 Internship/Field Work

Graduate students may elect to take graduate credit for extended internships. Permission of instructor. Contact the IDCE Office for internship proposal forms. Staff/Offered every semester

IDCE399 Independent Study

Staff/Offered every semester

IDCE30207 Gender, Militarization and Development/Seven-Week Module (1/2 credit)

This intensive seven-week seminar explores how the processes of militarization—in war time and in alleged peacetime—rely on certain ideas and policies about masculinity and femininity. Asking, "Where are the women?" will be central to the entire course. Among countries considered will be the Philippines, Rwanda, Afghanistan and Chile. Among the topics whose gendered dynamics affecting development will be investigated are violence against women, militias, peacekeeping efforts, trade in small arms, definitions of "security" and the interventions of foreign governments and aid agencies. Ms. Enloe/Offered periodically

IDCE30209 Interdisciplinary Topics Seminar

The seminar course is taught around a different topic each time, with guest lecturers and speakers from inside and outside Clark providing diverse perspectives. Topics may include: Climate change, vulnerability and adaptation; watershed stewardship; water supply and sanitation technologies; risk analysis and management; renewable-energy alternatives; brownfields redevelopment; smart growth and green design. Regional areas of focus may include: Worcester and central Massachusetts, Nevada, Alaska, the U.S.-Mexican border; Eastern Europe and East Africa. One or more topics and one or more regions may be used. Field trips complement the classroom lecture and discussion. (Staff, two half-course modules - Spring Year 1 and Fall Year 2)

IDCE30211 Field Research in Youth Development and High-School Transformation/Seminar

Students engage in research on youth development in the context of urban high-school transformation. They work on a research team consisting of the instructor and two IDCE graduate students. Students participate in the creation of interview instruments, focus group protocols and survey designs. They conduct the interviews and focus groups with high-school students in Worcester's new small schools. Students are also involved in data analysis and report writing. Ms. Ross/Offered every semester

IDCE30212 INTRODUCTION TO COMPUTER AND QUANTITATIVE METHODS

Investigates the quantitative and qualitative potential of using mathematical computer models to guide policy in human/environment systems. Students learn to think with a systems perspective while translating their own conceptual models to mathematical models to computer models. Includes lab sessions in the computer room and lectures/discussions in the classroom. The course culminates in written and verbal presentations of student projects. Students gain technical proficiency in the programming language VBA and other software designed for sustainability analysis. Students can apply what they have learned in calculus and statistics. Prerequisites are MATH121 or MATH125, graduate standing or permission. A skill or specialization course in the geography major. Mr. Pontius/Offered every year

IDCE30213 MASTER'S FINAL RESEARCH PAPER/WORKSHOP (1/2 CREDIT PER SEMESTER)

Optional yearlong seminar for second-year IDCE master's degree students writing their final research paper. Staff/Offered every year

IDCE30217 ECONOMIC FUNDAMENTALS FOR INTERNATIONAL DEVELOPMENT

This course is primarily intended for students entering the IDCE masters program. Its objectives are to introduce economic history, as well as microeconomics and macroeconomics to the noneconomist, while illustrating practical applications of these techniques in real-world situations. A flexible seminar format is used, in recognition of the diverse backgrounds and perspectives that students bring to this class. Staff/Offered every year

IDCE30218 COMMUNITY-DEVELOPMENT DECISION MAKING AND NEGOTIATION

The field of community development and related professions demand that a practitioner have informed and timely decision-making skills. Daily compromises and negotiations characterize the profession. This course will blend the academic approach to the subjects with the case study of real-world experiences of the instructor. Instruction will include a range of decision options, multiple criteria analysis, value prioritization, information collection and it's weighing of quality and relevance. A combination of extensive readings and lectures, case studies and modeling of decision criteria will be employed. A particular emphasis will be on decisions typical to the field of community development, after treatment of generic decision theory. Mr. Tigan/Offered every year

IDCE30219 RISK ANALYSIS: POLICY AND METHODS/1/2 CREDIT/SEVEN WEEK MODULE

See EN265 for description.

IDCE30221 EDUCATION, COMMUNITY AND DEVELOPMENT/SEMINAR

Education (formal, non-formal and informal) has played a strategic role in shaping society over the past century, and continues to inform development at the community, national and international levels. This course examines the historical evolution of education and explores its continued local and global relationship to the process of international and community development. Mr. Bell/Offered every year.

IDCE 30224 PARTICIPATORY PROJECT EVALUATION

Provides students with an understanding of the conceptual, methodological and practical aspects of field-based project evaluation in international development and the social context of interests and concerns within which such evaluations occur. The course covers systematically all phases of evaluation research, and places particular emphasis on the evaluation process as a collaborative undertaking that engages the participation of local resource persons (project staff, beneficiaries, local experts), adding value in the form of ownership, knowledge and improved project design. Ms. Rachel/Offered every year

IDCE30275 GENDER IN DEVELOPMENT PLANNING/SEVEN-WEEK MODULE (1/2 CREDIT)

This mini-course explores the rationale for incorporating gender into development planning and analysis and builds knowledge, expertise and skills, which will enable course participants to integrate gender analysis into their various fields of academic and professional responsibility. We clarify approaches and identify tools for gender analysis in the context of participatory research, institutional change and community empowerment. We also explore methods of gender analysis for their usefulness to national policies and programs and for the design, implementation, monitoring and evaluation of programs and projects. Ms. Thomas-Slayter/Offered periodically

IDCE30287 FUNDAMENTALS OF ENVIRONMENTAL SCIENCE AND ENGINEERING/SEMINAR

Covers key scientific and technical topics and emphasizes quantitative skills of problem solving. Topic areas include: mass and energy transfer, environmental chemistry, mathematics of growth, risk assessment, water pollution and air pollution. The course aims to provide a solid foundation in important scientific aspects of environmental problems, complementing policy-oriented courses. Above all the course is designed to make students literate and comfortable with the language used to describe and analyze physico-chemical processes. Study journals and homework problems are used to encourage literacy. Math skills emphasized. Mr. Downs/Offered every year

IDCE30288 APPLIED ECOLOGY

This course is intended to reacquaint students with a selection of the physical and ecological principles that structure natural ecosystems, investigate how humans have altered natural ecosystems by failing to understand these principles and show (or suggest) how natural ecosystems can be returned to "health" by application of these same physical and ecologycal principles. The objective of the course is not to provide students with material to be memorized, but rather to give an appreciation of how disruption of physical and ecological factors and processes lead to environmental problems, and how a proper understanding of the factors and processes can assist in remedying the situation. The role of societal features (human needs and desires, political realities, etc.) in both causing the problems and remedying them will be a consistent, though low-level theme. Staff/Offered every year

IDCE30289 COMMUNITY DEVELOPMENT FINANCE/LECTURE, DISCUSSION

This course introduces students to the field of community development, with a particular focus on finance. The class explores the roles of various "field actors," such as developers, community-based community-development corporations, other nonprofits, for profits, banks, local governments and low-income residents. Students learn about the use of governmental subsidies to achieve public purposes, hot and cold commercial real-estate markets, the basics of identifying financial gaps in public-spirited projects, the financial analysis necessary to attract debt and stimulate equity investment, strategies to fill the gaps and ways to sustain projects. Familiarity with Excel spreadsheets is useful. Mr. Tigan/Offered every year

IDCE30290 PARTICIPATORY RESEARCH METHODS/SEMINAR

Explores a range of participatory, action-oriented and empowering approaches and methods of inquiry. The course provides a learning environment and a process that enables students to deepen their understanding of the theory and practice of participatory research. It provides an opportunity to practice specific methods and strategies and to develop critical criteria and skills for implementing and assessing participatory methods. The course balances the theoretical and conceptual dimensions of participatory research and inquiry (through readings, case studies and reflection on personal practice) with the application of participatory skills, methods and strategies. Mr. Bell/Offered fall semester

IDCE30291 QUALITATIVE RESEARCH DESIGN AND METHODS/SEMINAR

Provides an introduction to qualitative inquiry and explores the major assumptions, language and logic of qualitative research. The course emphasizes the modes of thinking and specific practices of qualitative research and focuses on conceptualizing and designing qualitative studies. It explores the issues and practices of qualitative inquiry; emphasizes strategies for developing research questions; and covers methods for data gathering, analysis and interpreting qualitative research. Mr. Bell/Offered spring semester

IDCE30292 PARTICIPATORY TOOLS FOR DEVELOPMENT, PLANNING AND ACTION/SEVEN-WEEK MODULE IN PARTICIPATION IN RURAL AND URBAN SETTINGS (1/2 ACADEMIC CREDIT)

In the last decade, participation has become a buzzword in development circles. Currently the concept is evolving into a more broadly cast approach called community development, community-based development (CBD), asset-based community development (ABCD), or community-driven development. While many publications and case studies have appeared on these approaches, there is a distinct lack of a systematic or structured methodology in presentation, execution, implementation or evaluation of CBD. In this course, students make such applications more systematic by reviewing the literature on participation, examining several development case studies that apply participatory tools and gaining experience in the use of participatory techniques in an urban setting. Mr. Ford, Ms. Ross/Offered every year

IDCE30293 YOUTH AND COMMUNITY DEVELOPMENT: THEORY, POLICY AND PRACTICE/SEMINAR

This course integrates readings, class discussion and field observations to understand the complex relationships between youth and community development. It provides an overview of adolescent development, with a specific focus on urban teens. Students are introduced to the strengths and challenges of young people growing up in inner-city neighborhoods. The course examines neighborhoods and after-school programs as particularly important contexts for youth development. Students discover that few youth-development programs address community-level factors that influence young people's futures, and conversely, few community-development initiatives involve youth as key actors in the development process. As a final project, students develop proposals based on evidence and driven by theory to begin to fill this critical gap. Ms. Ross/Offered every year

IDCE30294 THEORETICAL PERSPECTIVES AND PRACTICAL DECISION MAKING IN DEVELOPMENT/SEVEN-WEEK MODULE (1/2 ACADEMIC CREDIT)

This course focuses on four theoretical perspectives on development and their implications for practical decision making in regard to policies and programs for two fishing communities in the fictitious country of Arcadia. Five key intellectual questions shape our discussions: Who are the disadvantaged in a given social system? What is the nature of their disadvantage? What are the social relations (structures and organizations) that maintain their disadvantage? What are the historical patterns and trends in these social relations? What are the relationships among the local, national and international levels in creating and perpetuating these disadvantages? Ms. Thomas-Slayter/Offered every year

IDCE30296 NONPROFIT AND NGO MANAGEMENT ISSUES/SEVEN-WEEK MODULE (1/2 ACADEMIC CREDIT)

This course is designed for anyone currently, or intending to, work, run, fund or start a nonprofit or nongovernmental organization. This class is taught from the perspective of community-spirited action directed at social, economic and housing programs and projects. Although the emphasis is on domestic nonprofit organizations, some of the sessions deal with international NGOs. In addition, many of the domestic issues (e.g. financial management and board of directors' relations) are transferable to international organizations. Major topics covered include board relations, financial management and reporting, and personnel management. Mr. Tigan/Offered every year

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in one or more of IDCE's programs. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See Biology

BIOL201/BIOL301 Ecology of Atlantic Shores
BIOL216/BIOL316 Ecology
BIOL217/BIOL317 Ecology of Infectious Disease

See Chemistry

CHEM080 Introduction to Environmental Chemistry
CHEM142 Environmental Chemistry

See Economics

ECON108 International Economics: Trade and Finance
ECON128 Economic Development
ECON157 The Economics of Natural Resources and the Environment
ECON177 Japanese and Chinese Economies
ECON228/IDCE328 Economic Development
ECON247/ID30247 Economics of Population
ECON257 Environmental and Natural Resource Economics

See Foreign Languages

FREN249/IDCE321 The French-Speaking World

See Geography

GEOG016 Introduction to Economic Geography
GEOG085 Introduction to the Mapping Sciences
GEOG103 The Natural Environment of New England
GEOG107 Miracles of Asia: Economic Growth in Global Contexts
GEOG110/GEOG311 Introduction to Quantitative Methods in Geography
GEOG126 Living in the Material World: The Political Geography of Resource Development
GEOG127 Political Economy of Development
GEOG136 Gender and Environment
GEOG179 Globalization, Environment and Justice
GEOG180 The Earth Transformed by Human Action
GEOG184 Landscapes of the Middle East
GEOG 189 Remote Sensing and Geographic Imagery
GEOG211/GEOG312 African Environments and Geographical Implications
GEOG226/GEOG326 Environmental Hazards-Theory, Models and Applications
GEOG228/GEOG328 Management of Arid Lands
GEOG232/GEOG332 Landscape Ecology
GEOG239/GEOG339 Country and Culture
GEOG 242 Cities and Culture: The European City/Lecture
GEOG247/GEOG347 Intermediate Quantitative Methods in Geography
GEOG250/GEOG350 Technology and Environmental Assessment
GEOG254/GEOG354 Urban Transportation: Problems and Prospects
GEOG255/GEOG310 Qualitative Research Methods, Skills and Applications
GEOG256/GEOG356 Global Economic Geographies
GEOG257 Internet Geography: Socioeconomic Impacts of Information Technologies
GEOG260/GEOG360 Quantitative Modeling
GEOG262/GEOG366 Urban Economic Geography
GEOG263/GEOG363 The Climate System and Global Environmental Change
GEOG271/GEOG371 Groundwater Hydrology and Management
GEOG277/GEOG377 Gender, Environment and Development
GEOG280/GEOG380 Urban Ecology: Cities as Ecosystems
GEOG281/GEOG381 Tropical Ecology
GEOG282/GEOG382 Advanced Remote Sensing

GEOG284/GEOG384 Environment and Development in the Middle East and North Africa
GEOG289/GEOG389 Development Policy
GEOG 293/383 Digital Image Processing
GEOG 294 Seminar in Cartography
GEOG314 Research Design and Methods
GEOG330 Human-Environment/Nature-Society Science and Study
GEOG343 Seminar in Human Dimensions of Global Change: Impacts and Societal Responses
GEOG351 Seminar in Resource Geography: Theory and Method
GEOG353 International Political Ecology
GEOG355 Social Forestry, Agroecology and Development
GEOG365 Graduate Seminar in Economic Geography
GEOG370 Animal Agriculture
GEOG389 Research Themes in GIS
GEOG397 Advanced Topics GIS

See Government

GOVT069 Introduction to International Relations
GOVT103 Africa and the World
GOVT117 Revolution and Political Violence
GOVT136 Sub-Saharan Africa: Issues and Problems
GOVT177 Transitions to Democracy
GOVT201 The HIV/AIDS Crisis in Africa
GOVT208/IDCE308 Comparative Politics of Women
GOVT211 International Cooperation
GOVT216 Comparative Environmental Politics
GOVT218/IDCE320 Child Labor Globalization
GOVT219/IDCE319 Politics and Development in Southern Africa
GOVT226/IDCE30253 International Political Economy
GOVT227/IDCE326 Global Politics of Development
GOVT228/IDCE327 Comparative Politics of Race, Ethnicity and Gender
GOVT233/IDCE30295 State Building in the Middle East and the Balkans
GOVT240/IDCE340 Human Rights and International Politics
GOVT275 Gender, Politics and Development in Africa
GOVT286/IDCE386 Advanced Topics in Comparative Politics

See History

HIST077 Introduction to Latin-American Civilization
HIST084 Japanese Civilization
HIST179 The History of Traditional Africa
HIST180 History of Modern Africa
HIST181 Chinese Civilization
HIST182 Modern China
HIST184 Modern Japan
HIST 225/IDCE 30298 Modern Africa
HIST272/HIST372 Advanced Topics on Latin America
HIST275/IDCE379 20th-Century Latin America
HIST281 The People's Republic of China
HIST282 Chinese Women in Literature and Society
HIST288 Seminar in Chinese History

See Management

MGMT252/IDCE30252 Corporate Environmental Management

See Philosophy

PHIL131 Environmental Ethics
See Peace Studies
PSTD101 An Introduction to Peace Studies and the Psychology of Peace

See Sociology

SOC160 Global Cultures and Identities
SOC232/IDCE333 Population, Environment and Development
SOC250/IDCE303 Culture, Consumption and Class in Local and Global Contexts
SOC255/IDCE378 The Creation of Nationalism, Nationalist Cultures and Symbols
SOC260/IDCE309 Roots and Routes: Immigrants, Diasporas and Travel

SOC265/IDCE30265 Social Movements: Quest for Justice
SOC285/IDCE 39912 Poverty: Social Policy, Immigration and Urban Social Change
SOC288/IDCE347 Globalization: Fashion and Foul Play

INTERNATIONAL STUDIES STREAM

Program Faculty

Robert Ross, Ph.D., *Program Director*
David Angel, Ph.D.
Yuko Aoyama, Ph.D.
Michael Bamberg, Ph.D.
David Bell, Ph.D.
Parminder Bhachu, Ph.D.
Paul Burke, Ph.D.
Marvin D'Lugo, Ph.D.
Carol D'Lugo, Ph.D.
Joseph de Rivera, Ph.D.
Patrick Derr, Ph.D.
William Ferguson, Ph.D.
Beverly C. Grier, Ph.D.
Robert Hsu, Ph.D.
Douglas Little, Ph.D.
Bruce London, Ph.D.
Richard Peet, Ph.D.
Dianne Rocheleau, Ph.D.
Paul Ropp, Ph.D.
Walter Schatzberg, Ph.D.
Valerie Sperling, Ph.D.
Michael Spingler, Ph.D.
Barbara Thomas-Slayter, Ph.D.
Maurice Weinrobe, Ph.D.
Kristen Williams, Ph.D.

Program Overview

The International Studies Stream is an innovative option within Clark's Program of Liberal Studies, which offers students the opportunity to structure their broad liberal-arts education by focusing on international themes and issues.

To succeed in contemporary society, students must be familiar with the different ways common problems—such as economic growth, immigration, social welfare and environmental regulation—are dealt with across the globe. Students need to understand the historical, social and political foundations for these differences, and they need to be able to assess their own societies within an international context.

The International Studies Stream helps students understand the implications of global integration for cultural identity, economic growth, peace, security and development. Language and cultural studies provide the skills necessary for effective participation in the global economy.

This program infuses students' educational experiences with an international perspective. Through courses, guest speakers, internships and study-abroad opportunities, the International Studies Stream provides the broad-based international experience students will need in our increasingly global society.

A flexible curriculum

The foundation of the International Studies Stream is a set of courses with an international focus and enhanced language training designed to place the experience of the United States and other countries in global context.

The curriculum incorporates the best elements of undergraduate teaching: team-taught interdisciplinary courses; small classes taught in seminar format; genuine language proficiency, developed in part through study outside the United States; extension of academic activities beyond the classroom through field trips, speakers programs and other informal activities; and careful mentoring of students.

This program recognizes that success in most careers now requires international perspective and language skills. International Studies Stream curriculum can be combined with any major, and is flexible enough to address the educational needs of aspiring bankers, journalists, attorneys, physicians, grassroots organizers and many others.

Requirements

Students in any major may participate in the International Studies Stream. The program is intended to provide focus for a student's studies rather than to impose many additional requirements. The stream includes a broad range of courses and extracurricular activities from which students can select to create an appropriate, challenging program of study. Successful completion of the stream will be designated on students' transcripts.

Requirements for the stream are:

- The core course: IDND066 Global Society
- In 2005, a new course requirement will be introduced as a follow-up to Global Society. This will be IDND067 Problems of Globalization.
- Program of Liberal Studies (PLS) requirements—All Clark undergraduates are required to complete eight PLS courses: a verbal-expression course, a formal-analysis course, and six perspectives courses. Students in the International Studies Stream automatically satisfy at least four of the eight PLS requirements by taking internationally focused courses in the aesthetic perspective, comparative perspective, historical perspective, language and culture perspective, and values perspective. Students may fulfill the verbal-expression requirement in or out of the stream; the formal-analysis and scientific-perspective requirements are not part of the stream. See the perspectives course listings at the end of this section.
- Expanded foreign-language proficiency—Beyond the Program of Liberal Studies language and culture perspective requirement, International Studies Stream students complete two additional semesters of language study or demonstrate competence equivalent to two years of language study at the college level. Clark offers courses in French, Spanish, German, Russian, Japanese, Chinese and Hebrew. Proficiency tests for other languages can be arranged.
- Study-abroad experience—U.S. students in the Stream must complete at least one unit of study outside of the United States. They may participate in a semester or yearlong study-abroad program, a May Term or summer course, or an internship. Clark study-abroad sites include Namibia, England, Scotland, China, France, Germany, Japan, Luxembourg or Spain. For further information, see "Office of Study Abroad Programs." International students, whose study-abroad experience is at Clark, complete an internship with an international agency in the United States, or a research project focused on an international issue. Please note: ISS participation is not required to participate in study-abroad programs.

Perspective Courses

The following courses are approved for credit in the International Studies Stream. For more details on any of the following courses, see the catalog listing under the participating home department.

AESTHETIC PERSPECTIVE

See Art History

ARTH010 Stone Age to Our Age: Monuments and Masterpieces of Western Art
ARTH155 Art of Africa, Oceania and Native America
ARTH156 Art of Black Africa
ARTH160 Arts of Asia
ARTH161 Arts of Islam

See Foreign Languages

SPAN246 Studies in Spanish Cinema

See Screen Studies

SCRN121 Survey of International Film Movements
SCRN101 Introduction to Screen Studies
SCRN248 Studies in Latin-American Cinema
SCRN263 History of French Cinema

COMPARATIVE PERSPECTIVE

See Comparative Literature

CMLT130 The National Imagination

See Economics

ECON010 Economics: A Comparative Approach
ECON100 The Global Economy
ECON177 Chinese and Japanese Economies

See Foreign Literatures

FREN249 The French-Speaking World

See Geography

GEOG016 Introduction to International Economies
GEOG030 Immigrants and the City: The World Comes to Worcester
GEOG127 Political Economy of Development
GEOG152 Geography of Globalization
GEOG170 Divided Cities, Connected Lives
GEOG179 International Political Ecology

See Government

GOVT070 Introduction to Comparative Politics
GOVT208 Comparative Politics of Women

See History

HIST124 Ethnicity and Nationalism
HIST251 Comparative Study of Revolution: The French Revolution of 1789 and the Beginnings of Modern Revolutions

See IDCE

ID131 Local Action, Global Change
ID170 Ecology and Economy in the Tropics
ID120 Introduction to Social Anthropology
ID125 Tales from the Far Side: Development and Underdevelopment
ID212 Women and Social Change

See Peace Studies

PSTD120 International Conflict Management

See Sociology

SOC100 Introduction to Sociology
SOC256 Class, Status and Power

HISTORICAL PERSPECTIVE

See Government

GOVT103 Africa and the World

See History

HIST062 War and Peace in the Middle East
HIST070 Our European Roots: Western Civilization from Ancient Hebrews through the Renaissance and Reformation
HIST071 Our European Roots: Western Civilization from the 17th-Century to the Present
HIST080 Introduction to Modern Asia
HIST084 Japanese Civilization
HIST177 Latin America 1825
HIST181 Chinese Civilization
HIST182 Modern China: 1880 to the Present
HIST184 Modern Japan
HIST255 Global Relations: 20th Century

LANGUAGE AND CULTURE PERSPECTIVE

See Foreign Languages

CHIN101/CHIN102 Introductory Chinese
FREN136 Studies in the Evolution of French Culture
FREN101/FREN102 Elementary French I, II
FREN103 Elementary French
FREN105/FREN106 Intermediate French I, II
FREN120 Ways of Writing, Ways of Speaking
GERM101/GERM102 Introductory German I, II
GERM103/GERM104 Intermediate German I, II
GERM131 Spoken and Written German
GERM134 Workshop in Translation
GERM140 Modern German Prose
GERM156 The Modern German Short Story
GRK101/GRK102 Introductory Greek I, II
HEBR101/HEBR102 Elementary Hebrew I, II
HEBR103 Intermediate Hebrew
HEBR104 Intermediate/Advanced Hebrew
HEBR105 Advanced Hebrew
HEBR199 Advanced Topics
JAPN101/JAPN102 Elementary Japanese I, II
JAPN103/JAPN104 Intermediate Japanese
JAPN105 Advanced Japanese

LAT101/LAT102 Introductory Latin
RUSS101/RUSS/102 Introductory Russian
RUSS103/RUSS104 Intermediate Russian
RUSS299 Advanced Topics: Russian Literature and Grammar
SPAN101/SPAN102 Elementary Spanish I, II
SPAN103 Elementary Spanish Intensive
SPAN105/SPAN106 Intermediate Spanish I, II
SPAN127 Practice in Oral and Written Spanish
SPAN131 Readings in Hispanic Literatures

VALUES PERSPECTIVE

IDND066 Global Society

The globalization of cultural, economic and political life is one of the defining modernist themes of the 20th century. The signs of international interdependence are everywhere, from the rise of Japanese automobile factories in the heartland of the United States to the success of Hollywood movies in Eastern Europe and beyond. And yet in the midst of the apparent triumph of globalization, diverse examples of fragmentation and local action and initiative also capture our attention. The great international institutions of the 20th century—the United Nations, the World Bank and the new World Trade Organization—are also challenged by ethnic nationalism, economic protectionism and growing introspection on the part of many countries. This course provides a wide-ranging introduction to these twin themes of global and local action, and serves as the foundation for study within the International Studies Stream at Clark University. Fulfills the values perspective. Staff/Offered every year

See History

HIST272 19th and Early-20th Century European Values (Circa 1800-1930)
HIST033 Confucianism, Buddhism: Cultural Heritage of East Asia

See Philosophy

PHIL105 Personal Values
PHIL107 AIDS: Ethics and Public Policy
PHIL130 Medical Ethics
PHIL132 Social and Political Ethics
PHIL150 Philosophy of Religion
PHIL 221 Social and Political Philosophy

See Peace Studies

PSTD170 Introduction to Peace Studies

See Sociology

SOC204 The Holocaust: A study of Genocide

See Foreign Languages

SPAN152 Hispanic Literature of Political Commitment

VERBAL EXPRESSION

See Comparative Literature

CMLT125 Crossing Boundaries
CMLT188 The Culture of the Weimer Republic in Literature, Film and the Arts

See History

HIST032 Africa's 21st Century: Three Alternative Models

Note: In addition to the above faculty, who teach regularly in the program, other faculty members from a number of departments are active participants in the International Studies Stream, have research interests in this area, and offer courses that include a significant international component.

For more information about the International Studies Stream, contact:

Robert J. S. Ross, Ph.D., Director
International Studies Stream
Clark University, 950 Main Street,
Jefferson Academic Center, Room 405,
Worcester, MA 01610.
508-793-7181.

MANAGEMENT

Program Faculty

Edward J. Ottensmeyer, Ph.D., *Dean*
Priscilla Elsass, Ph.D., *Associate Dean*
Margarete Arndt, D.B.A.
Barbara Bigelow, Ph.D.
Mary-Ellen Boyle, Ph.D.
Gary Chaison, Ph.D.
Keith Coulter, Ph.D.
Dileep Dhavale, Ph.D.
Laura Graves, Ph.D.
Joseph Sarkis, Ph.D.
Inshik Seol, Ph.D.
Richard Spurgin, Ph.D.
Joel Sternberg, Ph.D.
Maurry Tamarkin, Ph.D.
Jing Zhang, Ph.D.

Visiting Instructors

Donna Gallo
William Mosher

Adjunct Faculty

Caroline Chiccarelli, Ph.D.
Jeffrey Clopeck, J.D.
John L. Crawley, M.S., J.D.
Jane Gilligan, M.A.
Michael Holbrook, M.B.A.
Irene Houle, M.B.A.
Jane Kapral, M.S., C.P.A.
Gerald McCarthy, Ph.D.
Thomas P. Millott, J.D.
Saeed Mohaghegh, M.B.A.
John Rainey, M.B.A.
Ruth Rowan, M.B.A., CFA
Dan Sullivan, M.B.A.
Kristi Thompson, M.B.A.
Peter van Dyke, J.D.
Dennis Wadsworth, M.B.A.
Russell Wass, M.S.M.

Emeriti

Robert C. Bradbury, Ph.D.
Harold T. Moody, Ph.D.

Program Overview

The Graduate School of Management offers four programs for undergraduates: the undergraduate major, the undergraduate minor, the accelerated B.A./M.B.A. program, and the accelerated B.A./M.S.F. program. Interested students should contact the director of program management and planning in the Graduate School of Management. Students should refer to the Graduate School of Management catalog for additional information on the M.B.A. and M.S.F. programs.

Major Requirements

The management major incorporates a variety of disciplines to form an applied preprofessional program. Required and optional courses include offerings from a number of academic departments. The undergraduate management major and the M.B.A. and M.S.F. programs are accredited by the AACSB-International—The Association to Advance Collegiate Schools of Business.

The required curriculum for management majors consists of eight prerequisite courses taken during the freshman and sophomore years, and eight required courses taken during the junior and senior years. Students must have at least a 2.0 overall grade-point average to declare management as a major. Students must take courses in the management major for letter grades. A 2.0 cumulative grade-point average in the major courses is required for graduation. Students interested in graduate study toward an M.B.A. or M.S.F. degree through Clark's five-year program are encouraged to minor in management.

Prerequisite Courses:

Freshman/Sophomore Years

ECON010 Economics: A Comparative Approach
ECON160 Introduction to Statistical Analysis or PSYC105 Quantitative Methods
MATH113 Mathematical Problem Solving or MATH120 Calculus I

MGMT100 The Art and Science of Management
MGMT101 Principles of Accounting
MGMT104 Introduction to Management Information Systems
MGMT170 Managerial Communications
MGMT203 Management Accounting

Required Courses:

Junior/Senior Years

MGMT210 Management and Behavioral Principles
MGMT230 Marketing Management
MGMT240 Corporate Finance
MGMT250 Operations Management
MGMT260 Applying the Art and Science of Management
MGMT262 Legal and Ethical Perspectives on Business
Two Management Electives*

(*MGMT299 may not be used to fulfill the management elective requirement.)

Management Minor

Students with a primary interest in liberal arts, but who also want exposure to business-related topics, should consider management as an undergraduate minor. The required curriculum for management minors consists of six courses in management, including MGMT100. Of the remaining five management courses, three must be at the 200 level.

Accelerated Degree Programs

The Graduate School of Management offers undergraduate students an opportunity to earn a B.A. in a major, as well as an M.B.A. or M.S.F. degree. The program features:

1. An undergraduate major in any of the liberal-arts disciplines at the University (management is not required as a major for this program)
2. Graduate courses, beginning in the senior year, leading to an M.B.A. or M.S.F. degree
3. A well-rounded education that combines an undergraduate liberal-arts education with a master's degree; students can earn both degrees in five years.

Student Advising and Entrance into the Program

Students should plan their undergraduate courses carefully to complete the requirements for both their major and the M.B.A. or M.S.F. degree within five years. The director of program management and planning is available to advise students interested in either accelerated program.

Admission occurs after the sophomore year, but before the beginning of the senior year. Students must apply to the Graduate School of Management for admission by April 15 of their junior year. As part of the application, students must submit transcripts of undergraduate academic work and take the GMAT (Graduate Management Admission Test) or GRE for both programs. This admission requirement is in addition to the required admission into the University's accelerated program (deadline April 1).

Work Experience

Five-year students are encouraged to participate in internships, summer jobs or other experiences as undergraduates for exposure to management issues and environments. The exposure improves a student's appreciation of graduate courses and enhances his or her credentials and qualifications for job placement. A graduate-level internship also is required as part of the M.B.A. and M.S.F. degree programs.

Accelerated B.A./M.B.A. Program

Freshman/Sophomore Years:

Undergraduate courses must be passed with a B- or better to waive any M.B.A. requirement.

MATH113 Mathematical Problem Solving and/or MATH120 Calculus I

Note: Math proficiency is an entrance requirement for the M.B.A./M.S.F. programs. It is demonstrated in one of three ways:

- A quantitative score in the 70th percentile on the GMAT/GRE
- A quantitative score between the 50th and 70th percentile on the GMAT/GRE plus one undergraduate math course passed with a grade of B- or better

- Two undergraduate math courses passed with a grade of B- or better

Optional courses that can waive some graduate-level classes:

ECON160 Introduction to Statistical Analysis or PSYC105 Quantitative Methods (waives STAT4005)
MGMT101 Principles of Accounting and MGMT203 Management Accounting (waives ACCT4100)
MGMT104 Introduction to M.I.S. (waives MIS4501)
MGMT230 Marketing Management (waives MKT4401)
MGMT240 Corporate Finance (waives FIN4201)
MGMT250 Operations Management (waives OM4601)

Junior Year:

Apply to the program (deadline is April 15).

For nonmanagement majors it is helpful, but not required, that students should have no more than one to three classes remaining for undergraduate degree requirements (i.e. perspective courses and requirements for major/minor) at the completion of the junior year so that four-and-one-half to six units of graduate-level courses can be taken in the senior year. Management majors may be restricted in the number of graduate M.B.A. or M.S.F. courses they can take during their senior year. Management majors should consult with the Graduate School of Management program director.

Senior Year—Fall (three units):

The following courses are recommended, although individual programs of study may vary.

MGMT4301 Creating Effective Organizations: Strategic Decision Making (1 unit)
ECON4004 Management Economics (1/2 unit)
MIS4501 Management Information Systems (1/2 unit)
MIS elective (1/2 unit)
MGMT4708 Contemporary Business Law (1/2 unit)

Senior Year - Spring (three units):

MGMT4302 Creating Effective Organizations: Leadership (1 unit)
ACCT4100 Foundations of Accounting (1 unit)
STAT4005 Statistical Methods (1/2 unit)
STAT4006 Management Decision Models (1/2 unit)

Fifth Year (10 units):

FIN4201 Financial Management (1/2 unit)
FIN5301 Stock and Bond Valuation or
FIN5302 Quantitative Techniques for Derivatives Valuation (1/2 unit)
MKT4401 Marketing Management (1/2 unit)
MKT4402 Marketing Strategy and Simulation (1/2 unit)
MGMT4709 Business in Society (1/2 unit)
OM4601 Operations Management (1/2 unit)
MGMT4707 International Management and Global Competition) (1/2 unit)

Capstone (1)

Three to four units of electives in area of concentration

One to two additional units of free electives to complete 5-1/2 units of electives.

Graduate Internship (Required for those who have less than three years work experience in the United States. No academic credit.)

Accelerated B.S./M.S.F. Program

Freshman/Sophomore/Senior Years:

ECON160 Introduction to Statistical Analysis or PSYC105 Quantitative Methods
ECON010 Economics: A Comparative Approach
MATH120 Calculus I
MGMT101 Financial Accounting

These five courses must be passed with a B- or better to count toward the M.S.F. prerequisites.

Junior Year:

Apply to the program (deadline is April 15).

Senior Year:

Complete undergraduate degree requirements

- FIN4201 Financial Management

Fifth Year (10 units):

- FIN5301 Stock and Bond Valuation (1/2 unit)
- FIN5302 Quantitative Techniques for Derivatives Valuation (1/2 unit)
- FIN5311 Portfolio Management (1/2 unit)
- FIN5309 Financial Econometrics (1/2 unit)
- FIN5201 Case Studies in Corporate Finance (1 unit)
- FIN5310 Case Studies in Derivatives (1 unit)
- FIN5207 Advanced Derivatives (1 unit)
- FIN5208 Fixed Income Securities (1 unit)
- FIN5203 Investment Strategies (1 unit)
- FIN5281 Case Studies in International Finance (1 unit)

Electives: two units of electives in Finance, Accounting or Economics

Graduate Program

The Clark University M.B.A. program develops competence in basic management functions, skill in managing organizations and an understanding of the global environment. Each graduate of Clark's M.B.A. program is able to demonstrate:

- Competence in the functional areas of management
- In-depth understanding of one of the functional areas of management, health administration or global business
- Skill in integrating the management functions into an effective organization, and understanding the legal, political, ethical, social, and environmental responsibilities of management
- Appreciation of the global context in which most organizations function
- Leadership and communication skills needed to formulate and implement management decisions

Graduate Requirements

The M.B.A curriculum consists of a combination of seven-week course modules and full-semester, 14-week courses. Modular courses count as 1/2-unit each, while a full semester course counts as one unit. A total of 16 units are required to complete the degree. Four of the units (seven courses) may be waived if equivalent courses have been completed in an undergraduate program, with a grade of B- or better. A graduate internship is required for all students with less than three years work experience in the United States. In addition, students must fulfill a math entrance requirement.

Required Foundation Courses

- ECON4004 Management Economics (1/2 unit)
- STAT4005 Statistical Methods (1/2 unit, waivable)
- STAT4006 Management Decision Models (1/2 unit)

Required Functional Courses

- MGMT4301 Creating Effective Organizations: Strategic Decision Making (1 unit)
- MGMT4302 Creating Effective Organizations: Leadership (1 unit)
- ACCT4100 Foundations of Accounting (1 unit)
- FIN 4201 Financial Management (1/2 unit)
- FIN 5301 Stock and Bond Valuation or
- FIN 5302 Quantitative Techniques for Derivatives Valuation (1/2 unit)
- MKT 4401 Marketing Management (1/2 unit)
- MKT 4402 Marketing Strategy and Simulation (1/2 unit)
- MIS 4501 Management Information Systems (1/2 unit)
- MIS Seven-week elective (1/2 unit)
- OM 4601 Operations Management (1/2 unit)

Required General Management Courses

- MGMT4709 Business in Society (1/2 unit)
- MGMT 4707 International Management and Global Competition (1/2 unit)

MGMT 4708 Contemporary Business Law (1/2 unit)
Capstone (1 unit)

Capstones

In the final stages of the M.B.A. curriculum, each student must complete a course that integrates their academic program and provides a professional, cross-disciplinary, career-building experience. Students have the opportunity to apply their academic skills to the world of practice through courses such as Management Consulting Projects (CAP5792), Entrepreneurship (CAP5900), Leadership and Decision Making in Organizations (CAP5784) and Global Business Seminar (CAP5783). Students enrolled in the health-care management concentration should notify the GSOM program director before enrolling for a capstone; students in other concentrations choose from capstone options that best complement their selected area of focus.

Concentration and Free Electives

In addition to the courses listed above, students must take three to four units in one area of concentration, plus additional electives in any other area to total 16 units for the entire program. Students may choose from the following areas of concentration:

Accounting

ACCT 5101 Financial Accounting and Reporting I (1 unit)
ACCT 5102 Financial Accounting and Reporting II (1 unit)
ACCT 5103 Management Accounting (1 unit)
ACCT 5104 Accounting Information Systems (1 unit)
ACCT 5105 Financial and Operational Auditing (1 unit)
ACCT 5106 Management Control Systems (1 unit)
ACCT 5107 Analysis of Financial Statements (1 unit)
ACCT 5108 Business Analysis and Valuation (1 unit)
ACCT 5109 Nonprofit Accounting (1 unit)
ACCT/FIN5206 Tax Strategies and Management Decisions (1 unit)

Expanded Accounting Option

The expanded accounting concentration satisfies the 150-hour, postsecondary-education requirement for the Certified Public Accountant (CPA) examination. It also allows students an opportunity to prepare for the Certified Management Accountant (CMA) examination. Students pursuing this option must complete the foundation, functional and general management courses, along with the following six courses:

ACCT5101 Financial Accounting and Reporting I
ACCT5102 Financial Accounting and Reporting II
ACCT5103 Management Accounting
ACCT5104 Accounting Information Systems
ACCT5105 Financial and Operational Auditing
ACCT/FIN5206 Tax Strategies and Management Decisions

Finance

FIN5201 Case Studies in Corporate Finance (1 unit)
FIN5203 Investment Strategies (1 unit)
FIN5206 Tax Strategies and Management Decisions (1 unit)
FIN5207 Advanced Derivatives (1 unit)
FIN5208 Fixed Income Securities (1 unit)
FIN5281 Case Studies in International Finance (1 unit)
FIN5301 Stock and Bond Valuation (1/2 unit)
FIN5302 Quantitative Techniques for Derivatives Valuation (1/2 unit)
FIN5309 Financial Econometrics (1/2 unit)
FIN5310 Case Studies in Derivatives (1 unit)
FIN5311 Portfolio Management (1/2 unit)
FIN5900 Technical Analysis (1 unit)
FIN5900 Real Estate Finance (1 unit)
FIN6000 Financial Institutions (1/2 unit)

ACCT5107 Analysis of Financial Statements (1 unit)
ACCT5108 Business Analysis and Valuation (1 unit)

Global Business

FIN5281 International Finance (1 unit, required for concentration)
MKT5482 International Marketing (1 unit, required for concentration)
MGMT4712 International Transactions (1/2 unit)
MGMT5407 International Labor Relations (1/2 unit)
MGMT5783 Global Business Seminar (1 unit)
MGMT5900 Global Entrepreneurship (1 unit)
MGMT5900 Doing Business in Northern Europe (1 unit)
MGMT6000 Global Business Teams (1/2 unit)

Health Care Management

Students concentrating in health-care management must take the following six courses (four units):

HCM4800 Health Systems (1 unit)
HCM4806 Strategic Management of Health-Care Organizations (1 unit)
HCM4810 Revenue Issues in Health-Care Organizations (1/2 unit)
HCM4811 Management Control in Health-Care Organizations (1/2 unit)
HCM4812 Topics in Institutional Management (1/2 unit)
HCM4813 Topics in Ambulatory-Care Management (1/2 unit)

Management

MGMT4305 Career Development (1/2 unit)
MGMT4701 Organizational Communication (1/2 unit)
MGMT5401 The Contemporary Workplace (1/2 unit)
MGMT5402 Discrimination in Employment (1/2 unit)
MGMT5304 Negotiation and Conflict Resolution (1/2 unit)
MGMT5305 Industrial Relations (1/2 unit)
MGMT5306 Collective Bargaining (1/2 unit)
MGMT5307 International Labor Relations (1/2 unit)
MGMT5604 Services Management (1 unit)
MGMT5783 Global Business Seminar (1 unit)
MGMT5792 Management Consulting Projects (1 unit)
MGMT5802 Entrepreneurship (1 unit)
MGMT5900 Doing Business in Northern Europe (1 unit)
MGMT6000 Financial Institutions (1/2 unit)
MGMT6000 Learning by Analogy (1/2 unit)
MGMT6000 Managing Change and Conflict (1/2 unit)
MGMT6000 Advanced Topics: Global and Virtual Teams (1/2 unit)
OM5603 Operations Technology Management (1 unit)

Management Information Systems

MIS5601 Database Management Systems (1/2 unit)
MIS5602 Decision Support Systems (1/2 unit)
MIS5503 Telecommunications Systems (1/2 unit)
MIS5504 Software Methodologies (1 unit)
MIS5505 Management of Information Technologies (1 unit)
MIS5900 E-commerce (1 unit)
MIS5900 Web-site Development (1 unit)

Marketing

MKT5401 Marketing Research (1 unit)
MKT5402 Consumer and Industrial Buyer Behavior (1 unit)
MKT5403 Advertising and Promotion (1 unit)

MKT5404 Sales and Sales Management (1 unit)
MKT5405 Business to Business Marketing (1 unit)
MKT5406 Market Pricing (1 unit)
MKT5407 Services Marketing (1 unit)
MKT5482 International Marketing (1 unit)
MKT 5494 Product Management (1 unit)

Free Electives

(Count as electives but do not count towards any area of concentration)
COM4700 Managerial Communications (1/2 unit)

Courses

Undergraduate courses

MGMT100 THE ART AND SCIENCE OF MANAGEMENT

How does the study of management fulfill the goals of a liberal-arts education? This course will introduce students to basic management knowledge and skills and will explore the ways in which managers use both artistry and science to achieve organizational and societal objectives. For those who are majoring or minoring in management, the course establishes a foundation for the topics they will study in greater depth in their future course work. For all other students, it provides an opportunity to learn about management from a multidisciplinary perspective and to become acquainted with the skills and knowledge that will be helpful in their careers and future activities in organizations. This is an active course using readings, lecture, case analyses, films, guest speakers, role plays and experiential exercises. The course involves a considerable amount of interaction between the professor and students and among students because the practice of management is about people working with, listening to and respecting people who have different backgrounds, experiences and opinions. Offered every semester.

MGMT101 PRINCIPLES OF ACCOUNTING/ LECTURE, DISCUSSION

A user-oriented approach teaches students an understanding of accounting information and the environment in which it is developed and used. Topics include: history of accounting, accounting cycle, accounting for assets, liabilities and equity, and international accounting issues. Staff/Offered every semester

MGMT104 INTRODUCTION TO MANAGEMENT INFORMATION SYSTEMS/LECTURE, DISCUSSION

Emphasizes basic knowledge needed to understand the field of information systems. Topics include information and organization, database management, recent developments in computer technology and their effect on management, and information systems design and management. Staff/Offered every semester

MGMT170 MANAGERIAL COMMUNICATIONS/ LECTURE, DISCUSSION

Helps students communicate with confidence by showing them how to prepare clear, concise memos, letters, reports and proposals and deliver effective oral presentations. Through class participation and in-class writing exercises, students develop greater skill in both written and oral communication. Staff/Offered every semester

MGMT203 MANAGEMENT ACCOUNTING/ LECTURE, DISCUSSION

Emphasizes accounting from the management perspective. Students learn principles of management decision making using accounting information. Prerequisites: MGMT100, 101; not open to first-year students. Staff/Offered every semester

MGMT210 MANAGEMENT AND BEHAVIORAL PRINCIPLES/LECTURE, DISCUSSION

General principles of management are studied, emphasizing the behavior of people in organizational settings. Topics include principles of organization, decision making, leadership, motivation and rewards, job satisfaction, appraising employee performance, and the impact of demographic diversity on organizations. Prerequisite MGMT100: juniors and seniors only. Staff/Offered every year

MGMT211 ORGANIZATION STRUCTURE AND PROCESS/ LECTURE, DISCUSSION

Surveys major concepts of organizational theory, applying these concepts to business problems. Topics include properties of organizational environments, organizational structure, organizational power and conflict, and organizational change. Prerequisites: MGMT210; juniors and seniors only. Staff/Offered periodically

MGMT215 ENTREPRENEURSHIP/LECTURE, DISCUSSION

Successful entrepreneurship begins with a vision. Like an artist, the entrepreneur must be able to translate creative vision into something tangible and real. This course, for both management and nonmanagement majors, is designed to introduce students to the entrepreneurial process so that they may begin to shape their own entrepreneurial vision. Course objectives will include a realistic preview of the challenges of entrepreneurship, an understanding of the legal and ethical environment within which entrepreneurs operate, the ability to develop a business plan, and the skills to think critically and the ability to evaluate opportunities in the business or nonprofit sectors. The course will also include self-assessment activities designed to help students assess their own entrepreneurial potential.

MGMT222 WOMEN IN THE HEALTH-CARE SYSTEM/ SEMINAR

Women play an important role in the U.S. health-care system. They represent the majority of patients, dominate many health-care occupations, and provide an important link between their families and the formal health-care system. This seminar course for juniors and seniors will explore literature that describes and conceptualizes 1) how we define health and sickness as a society; 2) women in their various roles in the health-care system and 3) how the health-care system identifies and meets women's need for health services. The subject matter is of particular salience for students who have an interest in women's studies or are thinking of a career that will bring them in contact with the health-care system, be it as a provider or manager. Offered periodically.

MGMT225 HUMAN RESOURCE MANAGEMENT/ LECTURE, DISCUSSION

Covers general functions of human resource management, including job design, recruitment, selection, management development and training, performance appraisal, employee rights, labor relations and collective bargaining, wages and fringe benefits, and compensation systems. Prerequisite: juniors and seniors only. Staff/Offered periodically

MGMT226 INDUSTRIAL RELATIONS/LECTURE, DISCUSSION

Introduces the concepts, theory and practice of labor-management relations. Topics include the development of the trade-union movement; union organizing; the structure, practices and outcomes of collective bargaining; the administration of the collective agreement; dispute resolution procedures; and the public policy of labor relations. Prerequisite: juniors and seniors only. Offered periodically

MGMT230 MARKETING MANAGEMENT/LECTURE, DISCUSSION

Surveys the role of marketing in business and society. Topics include the marketing environment, marketing research and information systems, consumer behavior, the organizational consumer, products, pricing, distribution, promotion, international service and nonprofit marketing. Prerequisites: ECON010; MGMT100; juniors and seniors only. Staff/ Offered every semester

MGMT231 MARKETING RESEARCH/LECTURE, DISCUSSION

Marketing research focuses on consumer behavior and retail advertising. Topics include primary and secondary data collection, questionnaires for attitude and awareness surveys, mail and phone surveys, personal interviews, focus groups and data-analysis techniques. Prerequisites: MGMT230; juniors and seniors only. Staff/Offered periodically

MGMT234 CONSUMER BEHAVIOR/LECTURE, DISCUSSION

Examines how people search for, purchase, use, evaluate and dispose of the products, services and ideas they expect to satisfy their needs. Emphasizes the issues of market segmentation and the diffusion of innovations. Ethical, legal and public-policy issues are also discussed. Prerequisites: MGMT230; juniors and seniors only. Staff/Offered periodically

MGMT240 CORPORATE FINANCE/LECTURE, DISCUSSION

Examines financial decision making by the internal financial manager. A study is made of valuation, cost of capital, capital structure, capital budgeting and financial analysis. Prerequisites: ECON010; MATH113 or 120; MGMT100, 101; juniors and seniors only. Staff/Offered every semester

MGMT242 INVESTMENTS/LECTURE, DISCUSSION

Covers investment principles, market behavior and investment strategy. Investment principles include portfolio selection, fundamental analysis, portfolio theory, debt instruments and money markets, the stock-option market and alternative investments. Prerequisites: MGMT240; juniors and seniors only. Staff/Offered periodically

MGMT250 OPERATIONS MANAGEMENT/LECTURE, DISCUSSION

Provides overview of operations-management systems, emphasizing model building and applications. Topics include forecasting, quality control, inventory management, material requirement planning, machine loading, job sequencing and scheduling, project management and control, decision theory and linear programming. Prerequisites: ECON160 or PSYC105; MGMT100; MATH113 or 120; juniors and seniors only. Staff/Offered every semester

MGMT252/IDCE30252 CORPORATE ENVIRONMENTAL MANAGEMENT

This course will present many of the issues facing business and industry with relation to the natural environment. Topics such as external competitive pressures, internal strategic planning and positioning, corporate social responsibility, and stakeholder theory will be examined from a corporate environmental perspective. Case-study analysis, readings, speakers, videos and facility tours will be the methods of study. Prerequisite: juniors and seniors only. Offered periodically

MGMT260 MANAGEMENT PRACTICUM: APPLYING THE ART AND SCIENCE OF MANAGEMENT

This course serves as a complement to MGMT100, in that it offers a multidisciplinary and cross-functional consideration of the firm in its environment. The purpose of the course is two-fold: to give students various opportunities to integrate and apply the knowledge gained in the management major and to help students understand the roles and responsibilities of business organizations in the external environment. In this practicum, students will focus on the development of professional skills and will create a portfolio of accomplishments to assist in their careers. This course is required for all majors and must be taken during the senior year. Prerequisites: MGMT210, 230, 240, 250; seniors only. Staff/Offered every fall semester

MGMT262 LEGAL AND ETHICAL PERSPECTIVES ON BUSINESS

The purpose of this course is to provide students with knowledge about the legal framework under which U.S. businesses operate and with an understanding of the ethical foundations of business decisions. An appreciation of the complex interactions between ethics and the law is the goal. The course will examine such topics as product safety, privacy, human rights, advertising, bribery, media, community relations and diversity. Fulfills values perspective. Prerequisite: juniors and seniors only. Staff/Offered every year

MGMT299 INTERNSHIPS/DIRECTED READINGS

Internships and directed readings, open to juniors and seniors only, are offered to qualified students upon application. They are limited to no more than one course credit each and do not count toward the management major or minor. Students may take no more than two each of such courses in the Management Department. All MGMT299 courses must be approved by the Graduate School of Management director of program management and planning.

Graduate courses

ACCT4100 Foundations of Accounting

Managers use accounting data to measure and evaluate organizational performance and to make decisions. This course introduces accounting as the language of business by identifying and discussing principles and concepts. Topics include recording process, financial reporting and the application of accounting information in managerial decision processes. Students are provided opportunities to enhance their analytic skills through practice in compilation, reformulation and analysis of basic financial data. 14 weeks

ACCT5101 Financial Accounting and Reporting I

Accounting issues relevant to commercial organizations are numerous and complex. A set of accounting literature, referred to as Generally Accepted Accounting Principles or GAAP, guides the profession in the resolution of these issues. This course does not attempt to cover all GAAP, but rather provides a foundation for solving practical financial problems by introducing certain topics that are important in understanding the complexities of the business and financial world. The conceptual framework of accounting is discussed and then used as a basis to study accounting literature related to the recognition and measurement of current and noncurrent assets, current and noncurrent liabilities, stockholders' equity, and the development of income statements and balance sheets. (Prerequisite: ACCT4100 or its equivalent) 14 weeks

ACCT5102 Financial Accounting and Reporting II

A continuation of Financial Accounting and Reporting I, this course addresses accounting literature guiding the profession in such areas as accounting for income taxes, pensions and postretirement benefits, and leases. The treatment of accounting changes and errors, the preparation of the statement of cash flows and the disclosure required in financial reporting are also discussed. Finally, advanced topics such as business combinations, consolidated financial statements and accounting for partnerships are addressed. (Prerequisite: ACCT5101) 14 weeks

ACCT5103 Management Accounting

This course covers the collection and analysis of cost data, methods of cost control, and the relevance of various accounting data for managerial decision making in manufacturing and nonmanufacturing organizations. Topics include: activity-based costing and management, standard costing issues, decision making with management accounting data, budget analysis, new cost-management issues, and various cost-control and performance-evaluation issues. (Prerequisite: ACCT4100) 14 weeks

ACCT5104 Accounting Information Systems

This course explains the various control and accounting procedures used in collecting, measuring, summarizing and reporting financial data generated by an organization's operating units. The course emphasizes procedural techniques and studies the flow of financial data through an organization's accounting system. (Prerequisites: ACCT4100, MIS4501) 14 weeks

ACCT5105 Financial and Operational Auditing

This course covers fundamental aspects of financial auditing including management's responsibility for financial statements, the legal liability of auditors, evaluation of internal control structures, substantive tests and tests of systems and audit reports. Operational auditing and current developments in environmental auditing are also covered. (Prerequisite: ACCT4100) 14 weeks

ACCT5106 Management Control Systems

This course studies organizational planning and control and analyzes the ways in which management accounting practices can aid (and occasionally impede) planning and control processes. Topics include management-control systems, key variables and performance measurements, organizing for control, budget planning and measuring divisional performance. (Prerequisite: ACCT4100; MGMT4301-4304 is recommended) 14 weeks

ACCT5107 ANALYSIS OF FINANCIAL STATEMENTS
The topics covered in this course are intended to increase skill levels in interpreting financial statements and reports, reconstructing and restructuring financial data, use of analytical techniques for financial-statement analysis and communicating financial results. (Prerequisite: ACCT4100) 14 weeks

ACCT5108 BUSINESS ANALYSIS AND VALUATION
This course examines accounting, finance, business strategy and financial forecasting and valuation concepts. The first part of the course develops methods and techniques, which are later used in the evaluation of equity and debt financing of corporations, analysis of acquisitions and mergers of companies, credit analysis, prediction of financial distress and bankruptcies, evaluation of corporate financial policies, and improvement of communication with investors and creditors of corporations. This case-oriented course emphasizes how to apply accounting, finance and business strategy concepts in practical situations. The course relies heavily on financial information analyses and will count as an accounting or finance elective in both the M.B.A. and M.S.F. programs. (Prerequisites: at least one accounting and one finance course) 14 weeks

ACCT5109 NONPROFIT ACCOUNTING
This course will discuss various accounting issues unique to nonprofit entities. We will first discuss general financial reporting (a bit of a review of ACCT 4100) then bridge that knowledge to nonprofit organizations. In particular we will look at financial accounting for state and local governments, voluntary health and welfare organizations, colleges and universities and health-care organizations. We will also cover regulatory and taxation issues unique to nonprofits and then discuss audits of nonprofits and the costing of nonprofit services. The objective of the course is for you to develop a comprehensive understanding of these issues. 14 weeks

CAP5784 LEADERSHIP AND DECISION MAKING IN ORGANIZATIONS
The course offers an opportunity to reflect on how and why organizational leaders make operational or strategic decisions and on the context in which they are made. Course content includes presentations by executives, regular class sessions and several papers. All students will choose an aspect of organizational decision making as the focus of their work during the semester. (Prerequisites: required core courses) 14 weeks.

COM4700 MANAGEMENT COMMUNICATIONS
This course is designed to help managers communicate with confidence by showing them how to prepare clear, concise memos, letters, reports and proposals, as well as how to deliver effective oral presentations. Through active class participation and in-class writing exercises, students develop confidence in their ability to communicate effectively. Seven weeks

ECON4004 MANAGEMENT ECONOMICS
Managers of organizations—whether for-profit, nonprofit or government agencies—face a common set of resource-allocation problems. This course will develop a student's ability to formulate and solve these problems, drawing upon the economic theories of consumer demand, the firm and industrial organization as well as mathematical optimization techniques. It will provide a framework for analyzing the flexible multiproduct firm as well as competitive and cooperative business situations from a strategic (game theoretic) perspective. Topics to be surveyed include: demand analysis, production and cost analyses, flexible manufacturing, market structure and strategic behavior, pricing practices, government regulation and decision making under uncertainty.
(Prerequisite: MATH4003 or math entrance requirement fulfilled) Seven weeks

FIN4201 FINANCIAL MANAGEMENT

This course provides an introduction to financial principles and concepts, such as maximizing firm value, importance of cash flows, time value of money, stock and bond valuation, cost of capital and investment decisions criteria. (Prerequisites: ECON4004, STAT4006, ACCT4100) Seven weeks

FIN5201 CASE STUDIES IN CORPORATE FINANCE

This course extends the discussion from FIN4201 of the theoretical financial issues facing the corporation. The student is exposed to a more in-depth presentation of the underlying financial theories and gains practice applying these theories to actual problems either through case analyses or additional readings. (Prerequisite: FIN4201) 14 weeks

FIN5203 INVESTMENT STRATEGIES

Topics covered include investment principles, market behaviors and investment strategies. Students examine the types of risks associated with and the returns available from marketable securities. In addition to studying stocks and bonds, the course provides a risk-return analysis of alternative investment vehicles, such as options and futures. Views of investment professionals are presented to the class live and by video records. (Prerequisites: FIN4201, FIN5301 and FIN5302) 14 weeks

FIN5206 TAX STRATEGIES AND MANAGEMENT DECISIONS

This course covers the fundamentals of individual and corporate taxation including an analysis of tax policy, structure, legal hierarchy and procedure, as well as a discussion of tax aspects of the various common forms of business organizations, and an examination of tax considerations in implementing employee benefit plans. The basic foundations of international tax are addressed. Cases emphasize the necessity of considering the impact of federal taxes in management decisions. Students perform a tax compliance and planning project. 14 weeks

FIN5207 ADVANCED DERIVATIVES

Although the quantity and complexity of derivative securities has exploded in recent years, there are basic mathematical tools that can be used to accurately place a value on any derivative, no matter how complex. This course focuses on learning these tools and understanding how they are applied to standard derivatives such as futures, options and swaps. The course will also focus on applying these tools to current financial engineering problems. (Prerequisite: FIN5302) 14 weeks

FIN5208 FIXED-INCOME SECURITIES

This course examines fixed-income securities like U.S. Treasury bills, notes, bonds, corporate bonds and mortgages and then analyzes some of the derivatives based upon these securities. The theory of valuation for fixed-income securities is presented along with models of the term structure of interest rates. Much of the course is devoted to using personal computers to model the term structure as a basis for valuation. (Prerequisite: FIN5302) 14 weeks

FIN5281 CASE STUDIES IN INTERNATIONAL FINANCE

The focus is on specific problems encountered by financial managers in corporations having international financial functions. Although international capital budgeting and financing in a global environment are covered, the major emphasis is on managing foreign-exchange risk. (Prerequisite: FIN4201) 14 weeks

FIN5301 STOCK AND BOND VALUATION

This course provides an introduction to investment theory and security valuation. Surveys techniques for stock and bond valuation, including dividend discount models, capital-asset pricing models, multiple-stage growth and term structure models. (Prerequisite: FIN4201) Seven weeks

FIN5302 QUANTITATIVE TECHNIQUES FOR DERIVATIVES VALUATION

This course focuses on methods of pricing options, futures contracts, forward contracts and swaps. Models include the binomial and Black-Scholes models for options and arbitrage-free models for forwards, futures and swaps. (Prerequisites: FIN4201 and FIN5301) Seven weeks

FIN5309 FINANCIAL ECONOMETRICS

This course provides a survey of common statistical techniques employed in financial research, including linear regression, factor models, time-series models and forecasting models. (Prerequisite: FIN4201) Seven weeks

FIN5310 CASE STUDIES IN DERIVATIVES

The goal of this course is a thorough exploration of the risk-management process. This decision involves identifying and quantifying the risk to be transferred, selecting the means of transferring the risk and implementing the risk-management decision. Risk management is only partly a quantitative field. Strategy, negotiation, marketing and basic financial management are important as well. This course will focus on several important areas: (1) understanding the players in the market for financial risk; the buyers and sellers of risk, and the various intermediaries and (2) making a risk-management decision with only limited information about the true risks a firm faces. (Prerequisite: FIN5302) 14 weeks

FIN5311 PORTFOLIO MANAGEMENT

This course covers such topics as passive- and active-portfolio management, performance measurement, descriptions of investment companies, and diversification to include international investments and nonfinancial assets. (Prerequisite: FIN5301 is recommended) Seven weeks

FIN5900 TECHNICAL ANALYSIS

The focus of this course is how investors might use past market data to forecast future asset prices. This methodology is opposed to fundamental analysis, which depends on past accounting data for predictions of future prices. The class will examine popular methods of technical analysis and try to forecast prices using these methods on actual data. Speculative trading techniques such as entering trades via various types of orders, protecting by stop-loss orders and pyramiding of positions will be presented. The course will discuss the fit of technical analysis into the efficient markets hypothesis and into current finance theory. This course is offered as a special topics class and counts as a finance elective in both the M.B.A. and M.S.F. programs. (Prerequisite: FIN4201) Seven weeks

FIN6000/MGMT6000 FINANCIAL INSTITUTIONS

This course provides an understanding of financial institutions and of the effects of the regulatory and tax environments on the operation of these institutions. The special requirements of financial intermediaries are examined in relation to market participants such as investors and corporations. (Prerequisite: FIN4201) Seven weeks

HCM4800 HEALTH SYSTEMS

This course should be one of the first taken in the health-care concentration because it provides a framework that enables the student to see the contributions that the other required courses make to health-system management. Initially, this course examines various input-through put-output models of health systems and discusses the information necessary to understand the variety of components and links. It then uses the systems approach to identify key issues in various health-service sectors: for example, primary care, hospital services and high-technology services. Discussions and student papers focus on key issues related to health systems in the United States and other countries. 14 weeks

HCM4806 STRATEGIC MANAGEMENT OF HEALTH CARE ORGANIZATIONS

Integrates different facets of the curriculum by exploring the relationship between the context, content, and process of decision making in health-services organizations. We take into consideration the social role of health-services organizations, the expectations and power of internal and external stakeholders, the influence of decision makers' perceptions, values and goals, and the applicability of practices from private industry to the health-services sector. Cases, readings and class discussions integrate the complexities of management and leadership in health-services organizations. Prerequisites: MGMT4301, MGMT4302, MKT4401 and either HCM4811 or FIN4201. Required for health-care concentrators; can be used as an elective course for all others. 14 weeks.

HCM4811 MANAGEMENT CONTROL IN HEALTH-CARE ORGANIZATIONS

Applies management-control tools in hospitals, neighborhood health centers, home health agencies, nursing homes, physician offices and integrated health systems. The tools we use include budgeting, cost allocations, break-even analysis, performance measures and variance analysis. The cases, readings and class discussions also explore the interactions between management control, the behavior of organization members and the expectations of external stakeholders. Prerequisite: ACCT4100. Required for health-care concentrators; can be used as an elective course for all others. Seven weeks

HCM4812 TOPICS IN INSTITUTIONAL MANAGEMENT

Focuses on the management of hospitals and nursing homes. It is aimed at individuals without significant management experience in health care, providing a view of governance and internal operations, and exploring the interactions between client expectations, management's role and the professional staff in these organizations. Case discussions, readings and site visits integrate management techniquest, theoretical reflections and health-policy issues. Prerequisite: MGMT4301 and MGMT4302. Required for health-care concentrators; can be used as an elective course for all others. Seven weeks

HCM4813 TOPICS IN AMBULATORY CARE MANAGEMENT

Focuses on the management of clinics, physician offices, assisted-living facilities and home health-care organizations (including hospice). It is aimed at individuals without significant management experience in health care, exploring client expectations and the interactions between management and clinical and support staffs in each setting. Case discussions, readings and site visits integrate management techniques, theoretical reflections and health-policy issues. Prerequisites: MGMT4301 and MGMT4302. Required for health-care concentrators; can be used as an elective course for all others. Seven weeks

HCM8410 REVENUE ISSUES IN HEALTH-CARE ORGANIZATIONS

Reviews reimbursement methods for hospitals, physicians, nursing homes and home health-care agencies. We identify the economic incentives for providers and the behavioral and ethical issues associated with different reimbursement methods and with managing the revenue stream. We also study managed-care arrangements and the development of capitation rates and discuss allocation of global payments across providers in integrated health systems. Lastly, we look at sources of funds unique to not-for-profit organizations: fund raising and tax-exempt bonds. Prerequisite: ACCT4100. Required for the health-care concentrators and can be used as an elective course for all others. Seven weeks

MATH4000 MATHEMATICS FOR MANAGERS

A basic level of mathematical competence is required in many of the courses offered by the Graduate School of Management. MATH 4000 is designed for students whose skill in mathematics falls below that level. Course coverage includes: understanding the basics of algebra, generating and solving simple equations and sets of equations, graphical functions and translating business problems into mathematical notation. Business applications of mathematical techniques are emphasized throughout the course. Satisfies the mathematics admissions requirement only and cannot be taken as part of the 16-unit M.B.A. program. 14 weeks

MGMT4301 CREATING EFFECTIVE ORGANIZATIONS: STRATEGIC DECISION MAKING

This course focuses on the formulation and implementation of strategy at both the business and corporate level. Using an integrative approach that combines both the science and the art of strategy, the course introduces students to the tools that are used to assess an organization's internal and external environment; and to the process of strategic thinking. 14 weeks.

MGMT4305 CAREER DEVELOPMENT

Skillful career management is vital to both professional success and personal satisfaction. This course helps students develop career management skills that are appropriate to any level of career development, from making initial career decisions to later career changes. Self-assessment instruments, exercises and cases are used throughout the course. Topics include self-assessment, career decision making, job-search strategies, organizational assessment and socialization processes. Seven weeks

MGMT4701 ORGANIZATIONAL COMMUNICATION

This course is designed to increase students' knowledge of the theory and practice of communication in organizations. Topics include interpersonal communication issues, including the effects of culture, status and gender, and organizational issues such as crisis communication and public relations. Much of the course is devoted to skill development, emphasizing both written and oral presentations. Seven weeks

MGMT4707 INTERNATIONAL MANAGEMENT AND GLOBAL COMPETITION

This course addresses core management issues from the international perspective. Business policy, competitive strategy, organizational and control mechanisms, business modes and operations are thus covered from the perspective of global business. Geographic diversity and geographical influences are at the heart of the global economy. The diverse cultural, economic and political environments facing the business manager are unique dimensions that make up the foundation of the new course. (Prerequisites: ECON4004, MGMT4301) Seven weeks

MGMT4708 BUSINESS LAW

This course provides complete coverage of business law with a focus on contemporary, ethical, international and technology issues. This course recognizes the importance of the application of court decisions, statutes and government regulation to business and making business decisions in a global market. Seven weeks

MGMT4709 BUSINESS IN SOCIETY

This course combines the study of business ethics with the consideration of business in its social, technological, political and natural environments. Personal values and their function in organizational settings are the focus of the first half of the course, while the second half examines corporate responsibility and stakeholder management in the international contest. The emphasis throughout is on creative managerial decision making, with analytic and implementation skills developed through case discussion, case writing and class presentations. Seven weeks

MGMT4712 INTERNATIONAL TRANSACTIONS

This course is designed to elevate the knowledge and understanding of a variety of subjects contained inside the world of International Business Transactions. Some of these subjects include: world trade, International enterprises, treatment of "goods" in international markets, European Economic Community, business in Asia, regulations on imports and exports, currency exchange, international technology transfers, protection of intellectual-property rights, and litigation and arbitration in the international market. This course fulfills either the business-law requirement or a concentration elective (Management or Global Business) but cannot be used for both an elective and the law requirement. Seven weeks

MGMT5304 NEGOTIATION AND CONFLICT RESOLUTION

This skill-building course is designed to help students improve their negotiation and dispute-resolution techniques. Students will study the psychological concepts and theories of negotiation. They will also explore their own personal negotiation and conflict-resolution styles. The course relies heavily on the use of role-playing exercises, case studies and class discussions. Topics studied will include distributive and integrative bargaining, communication and persuasion, power, conflict and intergroup/international negotiation. (Prerequisite: MGMT4302) Seven weeks

MGMT5305 Industrial Relations
Broadly defined, industrial relations refers to the relationships between employees and employers, through union representatives. This course serves as an introduction to the concepts, theories and practice of labor-management relations. Topics include: the development of the trade-union movement; union structure, government and growth; the practice of collective bargaining; the administration of the collective-bargaining agreement; dispute-resolution procedures; and the legal framework of labor relations. Seven weeks

MGMT5306 Diversity in the Workplace
The race and gender composition of the U.S. workforce has become increasingly diverse in recent years. Drawing on research in organizational behavior, psychology and sociology, this course explores the complex dynamics that underlie interpersonal interactions in diverse organizations. Students will examine the past and present experiences of members of different race and gender groups in the U.S. workplace. Finally, students will consider how organizations can manage diversity in a manner that fully utilizes the talents of all members of the workforce. Male and female students of all racial/ethnic backgrounds are encouraged to enroll. Seven weeks

MGMT5308 Consulting Strategies and Skills
Consultants are often employed by management to analyze and resolve continuing organizational problems. This course takes a practical approach to learning about the consultant's role through the use of cases and consulting projects. Topics covered include problem definition and contracting, organizational diagnosis and change management, the management of consulting relationships and the consultant's use of self. (Prerequisite: MGMT4301, MGMT4302) 14 weeks

MGMT5401 The Contemporary Workplace
This course examines contemporary issues in employment. Topics include downsizing the workforce, discrimination in selection and employment, sexual harassment, employee rights and responsibilities, the employment of part-time, temporary and home workers, new forms of compensation, the frontiers of union organizing, and human-resource management in the global economy. Through the discussion of selected readings and cases as well as class debates, students develop an appreciation of the complexity and importance of these and other emerging issues. Seven weeks

MGMT5402 Discrimination in Employment
This course examines inappropriate and illegal discrimination in the contemporary workforce. Topics include discrimination in recruitment, selection and promotion, sexual harassment, the glass-ceiling effect and discrimination in compensation. Through the discussion of selected readings and cases as well as class debates, students develop an appreciation of the complexity and importance of these and other emerging issues. Seven weeks

MGMT5406 Collective Bargaining
Collective bargaining is a process by which representatives of labor and management seek agreement on the terms and conditions of employment. The public often has a vested interest in the process, especially when conflicts over terms of employment cannot be resolved at the bargaining table. Topics covered include the evolution of bargaining, theories of bargaining power and behavior, and the impact of the law on the conduct and substance of bargaining. The range of bargaining issues is described, along with variations in bargaining structures. The grievance procedure is examined with respect to the application and interpretation of collective agreements.

Students participate in a negotiation simulation and a collective-bargaining simulation. Seven weeks

MGMT5407 International Labor Relations

This course provides an international perspective on labor relations by comparing labor-union activities, nonunion forms of worker representation and labor legislation in several countries. Topics include collective bargaining and wage determination, union growth, labor disputes, protection against unfair dismissal, grievance procedures and employee participation in management decision making. National trends are examined and compared through readings, case studies and presentations. (Prerequisite: MGMT4301, MGMT4302) Seven weeks

MGMT5604/OM5604 Services Management

This course provides students with the concepts and tools necessary to manage service operations effectively. The strategic focus should also provide students with the foundation to start their own service business. The course explores the dimensions of successful service firms, prepares students for enlightened management and suggests creative entrepreneurial opportunities. Beginning with the service encounter, service managers must blend marketing, technology, people and information to achieve a distinctive competitive advantage. This course looks at service management from an integrated viewpoint with a focus on customer satisfaction. The material will integrate operations, marketing, strategy, technology and organizational issues. 14 weeks.

MGMT5783/CAP5783 Global Business Seminar

This intensive course combines lectures, readings and discussion at Clark University with a week of instruction by Clark faculty and resident business executives and guest lecturers in a foreign capital city. Current global business events are examined in the context of economic and political policy and management experience. Several class sessions are held on campus, followed by a week of seminars and Weld trips in a foreign center of commerce. (Prerequisites: required core courses) 14 weeks

MGMT5792/CAP5792 Management Consulting Projects

This course is organized around projects provided by a variety of profit and nonprofit organizations in central Massachusetts and Boston. Teams of three to four second-year M.B.A. students are invited to work in these organizations as consultants in training. Working with guidance from Clark faculty members and managers from the host organizations, the student teams analyze their assigned projects and recommend courses of action. Management, in turn, critically evaluates and responds to the students' analysis and recommendations, in much the same manner that they respond to proposals from their own staff. (Prerequisites: required core courses) 14 weeks

MGMT5793 Strategic Management of Technology

This course focuses on the technology dimension of competitive strategies and strategy-making processes. Through cases and readings, strategic-management concepts are used to analyze those critical points where technology intersects other processes and functions of the business firm. The perspective taken is that of the nontechnically trained manager dealing with technology issues of strategic importance to the firm. (Prerequisites: FIN4201, MGMT4301-4304, OM4601) 14 weeks

MGMT5802/CAP5802 Entrepreneurship

This course is aimed at providing individuals with the concepts and skills to recognize opportunities that others have overlooked, and to have the insight and knowledge to act where others have hesitated. The course is a product of experience—nearly two decades of research in this field and refinement in the classroom—and is rooted in real-world application. Major areas of concentration will include: opportunity identification and evaluation, forming the entrepreneurial team, managing resources, developing a business plan, financing the business and assessing entrepreneurship from a personal perspective. (Prerequisites: required core courses) 14 weeks

MGMT5900 SPIRITUALITY AND BUSINESS

There has been a recent explosion of books, tapes and videos on the topic of spirituality and business. At their roots are the beliefs that: (1) everyone is spiritual for we are composed of mind, body and spirit; (2) everyday business life has gone stale for many people because their spirit is not engaged in what they do; and (3) engaging our spirit at work will improve our relationship to what we do and to each other, and ultimately, will improve the bottom line. The course explores this concept through readings and discussions of spirituality in the context of the individual, work group and organization. It is different than other courses in that we will engage in spiritual, nonsectarian practices and rituals during class sessions. There are no prerequisites for this class other than an open mind. This course is offered as a special topics class and counts as a free elective in the M.B.A. program. 14 weeks

MGMT5900/CAP5900 GLOBAL ENTREPRENEURSHIP

Entrepreneurial opportunities in international markets have exceptional possibilities. However, in these uncertain economic times, the potential risks are also significant. This course explores these entrepreneurial opportunities from a global perspective. The students will divide into teams and develop a feasibility study for starting a moderate-size venture in an international environment. The teams will work together and research the essential components of a feasibility study through traditional research, Internet research, e-mail correspondence, and, when possible, meet with appropriate counselor representatives. The students will also analyze written international case studies, give several brief presentations and present the final feasibility analysis as the term project. This course is offered as a special topics class. (Prerequisites: FIN4201, MKT4401, and MGMT4301, MGMT4302) 14 weeks

MGMT6000 ADVANCED TOPICS: GLOBAL TEAMS

Advanced Topics in Teams explores the intriguing and challenging issues surrounding the use of teams in today's global organizations. This elective course goes beyond the introductory material covered in the managing-teams module of Creating Effective Organizations (CEO). It focuses on the challenges faced by global teams comprised of members from different regions of the world, as well as by virtual teams that rely primarily on electronic rather that face-to-face interaction. The course is designed to give you the skills needed to build and maintain effective global/virtual teams. Course topics include designing global/virtual teams, managing interpersonal processes and conflict within global/virtual teams, and using technology to enhance team performance. Class meetings will be highly interactive; activities will include case discussions and two virtual (electronic) team exercises. The course is included in the Global Business Concentration. (Prerequisite: MGMT4302) Seven weeks

MGMT6000 LEARNING BY ANALOGY

This course will use a variety of mediums (movies, art, literature, nature, poetry and music, among others) to explore management concepts. Students will be required to make presentations in each class session using the assigned medium as a basis for examining how organizations and the people in them function. The course focuses on developing an ability to think creatively about management and draw lessons from multiple venues. (Prerequisite: MGMT4301, MGMT4302) Seven weeks

MGMT6000 MANAGING CHANGE AND CONFLICT

Change and conflict are inevitable, as organizations enter the 21st century and face globalization, technological innovation, and demographic change. This course will address the challenge of managing conflict and change from a pragmatic perspective. Formal organization development interventions will be discussed, as well as the day-to-day changes that every manager experiences. Concepts such as employee involvement, organization culture, power and politics and the learning organization will be introduced and applied. Course requirements include planning an actual organizational change, oral and written case analyses and active participation. (Prerequisite: MGMT4301, MGMT4302) Seven weeks

MIS4501 MANAGEMENT INFORMATION SYSTEMS
One of the most important aspects of computing, management information systems has had a significant effect on both operations and strategy. Information systems are employed at all levels of management to achieve competitive advantage and to create new opportunities, products and services. The objective of this course is to provide basic knowledge of the field of information systems. Topics include hardware, software, database management, data communication, systems analysis and design, and functional application areas such as medicine, accounting and manufacturing. Seven weeks

MIS5503 TELECOMMUNICATION SYSTEMS
Telecommunication technologies have made a lasting impact on the manner in which information is transmitted within and among organizations. This course provides students with a working knowledge of the technical and managerial aspects of communication systems. On completion of the course, students will be able to analyze the types and components of communication systems and make an extensive comparison of the different types. (Prerequisite: MIS4501) Seven weeks

MIS5504 SOFTWARE METHODOLOGIES
Programming methods used in the development of Information Systems (IS) software range from third-generation to the more recent object-oriented ones. This course examines the methodologies that are periodically in use, with the aim of imparting to students the ability to select the one that best suits the requirements of a particular IS. Topics include visual, object-oriented, client-server and Internet programming. (Prerequisite: MIS4501) 14 weeks

MIS5505 MANAGEMENT OF INFORMATION TECHNOLOGIES
To effectively plan the Information Technology (IT) needs of an organization, managers must assess the impact of IT and the role it plays in the context of organizational strengths and goals. Through the use of case studies, this course is designed to provide students the insight required to make such appraisals. (Prerequisite: MIS4501) 14 weeks

MIS5513 DATA SECURITY AND PRIVACY
Begins with an introduction to the basic concepts of data security both physical and logical. It continues with dealing with data security standards, the SSL and S-HTTP protocols; data integrity; data encryption; coding methods; the use of smart cards; assurances of financial transactions, payment methods of e-business and e-commerce; medical information security; and legal aspects of information security. (Prerequisite: MIS4501) 14 weeks

MIS5523 OPERATING SYSTEMS
Developed as an introduction to operating systems' characteristics, designs and structures. Topics include a history of operating systems, concurrent processes and synchronization, coordination or asynchronous events, file systems, scheduling, deadlock resolution and memory management. (Prerequisite: MIS4501) 14 weeks

MIS5533 DESIGN AND ANALYSIS OF COMPUTER NETWORKS
Designed as an overview of LAN/WAN; encoding digital and analog signals, asynchronous/synchronous protocols; ISDN, B-ISDN, TCP/IP, with a focus on modeling and analysis of networks and network protocols. (Prerequisite: MIS4501) 14 weeks

MIS5543 PROJECT MANAGEMENT
Analyzes the most important aspects of project management within the framework of organizational behavior and structure that can determine project management. Students will be required to learn to use Microsoft Project 2000, including planning a project, creating project schedules, communication, project informa-

tion, using the critical path, assigning resources, tracking progress and sharing information across applications and the Web. Access to Microsoft Project 2000 software required. (Prerequisite: MIS4501) 14 weeks

MIS5553 INFORMATION SYSTEMS ANALYSIS AND DESIGN

Surveys the methods of IS analysis and design for enterprises with data-processing capabilities. The focus will be on how to determine feasibility and system requirements, organizational and procedural requirements and how to best utilize database capabilities. Special emphasis will be given to user groups, such as how to develop a user profile; how to improve human/computer interaction. (Prerequisite: MIS4501) 14 weeks

MIS5601 DATABASE MANAGEMENT SYSTEMS

Database management systems play an important role in meeting the information needs of an organization. A poorly designed database may result in providing incomplete, wrong and anomalous information. The primary objective of this course is to study the techniques used in designing databases that provide the correct information to nontechnically oriented users. Other topics include distributed databases and expert systems. (Prerequisite: MIS4501) Seven weeks

MIS5602 DECISION SUPPORT SYSTEMS

Optimization modeling techniques can potentially be used to address a wide range of management problems. Application of these techniques in today's business environment requires robust, microcomputer-based software to solve the models. In this course, students learn various optimization modeling techniques; software for solving models; and cases of how companies have developed and used optimization-based decision support systems to address real-world problems. (Prerequisite: OM4601) Seven weeks

MIS5606 DIGITAL BUSINESS

While digital Business includes the buying and selling of goods and services on the Internet/WWW, it also involves the internal use of digital technology in new ways to improve business processes. This class is an introduction to Digital Business, including a balanced coverage of technical and business topics. Case studies and business examples complement conceptual coverage to provide real-world context. This course will prepare the student to understand how an organization can become more effective. Students will develop their own Web pages to demonstrate course material. This course is offered as a special-topics class and will count as an elective in the MIS concentration. (Prerequisite: MIS4501 or MIS4500) Seven weeks

MIS5900 WEB-SITE DEVELOPMENT

This course covers all aspects of Web-site design, from creative design to professional management. Electronic commerce issues will be looked at in-depth. Students will work with and learn HTML and Java Scripting, including the introductory components of CGI and Web Site Pro server hosting software. Students taking this class will need to have Web-server access with a minimum of 2 MB hosting space available through their ISP and should be familiar with personal computers. All work will be done using the–Windows 95/98 operating systems. This course is offered as a special-topics class and will count as an elective in the MIS concentration. (Prerequisite: MIS4501) 14 weeks

MKT4401 MARKETING MANAGEMENT

This course provides the fundamental marketing principles and practices underlying a successful business enterprise. Students will learn the tools, concepts, analytical frameworks and skills for making marketing decisions and designing marketing programs. The course covers the processes and activities involved in effective marketing, as well as the strategic implications of being market driven. A fundamental goal of the course is to improve students' critical-thinking and decision-making skills by requiring students to make and defend marketing decision in the context of realistic, case-oriented problem situations. Topics include: segmentation, targeting, positioning, competitive strategy, product development, pricing, promotion and distribution. (Prerequisites: ECON4004, STAT4006) Seven weeks

MKT4402 MARKETING STRATEGY AND SIMULATION

This course utilizes a computer simulation to provide direct, hands-on experience of managing a business. In applying concepts and strategies learned in MKT4401 to a practical, real-world environment, students will come to appreciate the importance and value of marketing as the primary competitive tool and will gain direct exposure to the opportunities, challenges, problems and decisions involved in market-driven management. They will also learn the importance of making trade-offs in finding the optimal combination of marketing mix elements (and product/inventory decision) necessary to run a successful business enterprise. Experiential learning from the competitive game may be supplemented by case discussions and readings on competitive marketing strategy development. (Prerequisite: MKT4401) Seven weeks

MKT5401 MARKETING RESEARCH

This course examines the basic concepts and techniques used in marketing research as a problem-solving aid in decision making in marketing. Problem definition, research design, types of information and measurement scales, and evaluation and utilization of secondary data with emphasis on electronic access are discussed. Students are trained in the basic methods of primary data collection, including structured and unstructured interviews, focus groups and surveys. Practical and intensive applications on sample size, questionnaire design, data analyses and interpretation are emphasized, as well as discussion of advanced multivariate techniques for inputting and analyzing data using the SPSS statistical package. (Prerequisite: MKT4401, STAT4006) 14 weeks

MKT5402 CONSUMER AND INDUSTRIAL BUYER BEHAVIOR

Understanding consumer behavior is essential to defining and maintaining a market. This course examines the purchasing behavior of individuals and groups. Topics include: complex decision-making models, buying habits, attitude theory and the buying behavior of organizations. (Prerequisite: MKT4401) 14 weeks

MKT5403 ADVERTISING AND PROMOTION

Promotion, a component of the marketing mix, is any form of communication intended to inform, persuade or remind people of products or services. Advertising is any form of impersonal communication of ideas, goods or services paid for by an identified sponsor and is one of the major types of promotion. The course focuses on advertising and publicity as the most common and useful forms of promotion. The course integrates international, legal and ethical aspects of promotion and covers topics such as media selection, public relations and personal selling. (Prerequisite: MKT4401) 14 weeks

MKT5404 SALES AND SALES MANAGEMENT

Sales management integrates personal selling and marketing management with emphasis on relationship selling. The course focuses primarily on industrial rather than retail sales. Topics include techniques of personal selling; recruiting, training, organizing and motivating the sales force; compensation; forecasting; budgeting; and control. Legal and ethical issues are discussed. (Prerequisite: MKT4401) 14 weeks

MKT5405 BUSINESS-TO-BUSINESS MARKETING

Organizations that market to other organizations encounter different problems than those that market to consumers. Business-to-business marketing is the marketing of goods and services to commercial enterprises, governments and nonprofit institutions. Emphasis is on the buyer behavior and the more complex decision-making processes of organizations. Topics covered include industrial market segmentation, product development, pricing, personal selling, promotion and distribution. Additional topics are direct marketing, research and development, purchasing and corporate planning. (Prerequisite: MKT4401) 14 weeks

MKT5406 MARKET PRICING

A pricing strategy should be consistent with and reflect overall company objectives. Companies can use pricing strategies to gain market share, meet profit goals or maintain the status quo. Companies may pursue more than one pricing objective at the same time and often re-examine pricing strategy in light of changes in the competitive environment. This course presents a management approach to pricing products and services in consumer, industrial and reseller markets. Topics include: bargaining tactics, bidding strategies, pricing product lines for complex channels of distribution, life cycle and learning-curve pricing, and intrafirm transfer pricing. (Prerequisite: MKT4401) 14 weeks

MKT5407 SERVICES MARKETING

Highly competitive markets for profit and nonprofit service organizations require strict attention to the production/marketing interface, as well as to the traditional marketing mix. The course focuses on the marketing implications of service intangibility, the inseparability of production and consumption and conflicting server roles. These problems apply to a wide array of service organizations, including retailing and health care. Current models of the service organization are presented with insight developed through readings, cases and interviews. (Prerequisite: MKT4401) 14 weeks

MKT5482 INTERNATIONAL MARKETING

This course examines the problems that firms encounter as they enter international markets. The text and readings explore marketing problems facing joint venture and multinational firms, as well as the exporter and licensor. A range of marketing activities is covered in the context of international operations, including marketing research, product policy, pricing, distribution, promotion, planning, organization and control. (Prerequisites: MKT4401; MGMT4707) 14 weeks

OM4601 OPERATIONS MANAGEMENT

Operations management involves the efficient use of resources to create goods or services that satisfy the needs of customers and clients. In both the profit and nonprofit sectors, successful management requires economically rational decisions regarding the design and operation of processes that transform such resources into goods or services. The course develops students' abilities to identify and structure operating problems and to identify appropriate techniques for resolving them. Examples of topics covered include: modeling concepts and LP modeling/solution methods, basic forecasting methods, location selection, inventory management, MRP, JIT, quality management/assurance, project management and control. (Prerequisites: MATH4000 or math entrance requirement fulfilled, STAT4006, MIS4501) Seven weeks

OM5601 OPTIMIZATION FOR MANAGERS

This course provides an overview of important, practical tools that have been used to solve management problems. Explanation of the fundamental ideas behind these techniques will help students to apply them intelligently and flexibly to situations in the real world. Examples of the techniques are heuristics, simulation, shortest path, network models, dynamic programming, and so on. Thanks to desktop computers and user-friendly software, managers can now use these techniques themselves, a particularly attractive feature for small entrepreneurial firms. (Prerequisite: OM4601) 14 weeks

OM5602 APPLIED BUSINESS FORECASTING

Accurate forecasts of sales revenues, quantities sold, prices, production capacity, market size and share, inventory levels, personnel requirements and many other business measures are important for making good management decisions. Applied forecasting projects are drawn from marketing, finance, economics, organizational behavior, strategy and operations management to illustrate methodologies. Forecast projects are drawn from current local businesses or a special field of interest. Topics include forecasting with simple and multiple regression, time series analysis including classical and ARIMA methods, and exponential smoothing models. (Prerequisite: STAT4006) 14 weeks

OM5603 OPERATIONS TECHNOLOGY MANAGEMENT

To compete in the growing international marketplace, firms must be able to compete on the basis of manufacturing costs, productivity and product quality. Production managers face complex decisions as they try to balance productivity and quality against cost. This course compares traditional manufacturing methods and emerging trends such as Just-in-time, Flexible Manufacturing Systems, Total Quality Management and Computer Integrated Manufacturing. (Prerequisite: OM4601) 14 weeks

STAT4005 STATISTICAL METHODS

This is a first course in applied statistics. No prior knowledge of statistics is assumed. The course is divided into two sections. The first section covers the basics of data analysis and presentation, probability theory and applied probability. The second section covers confidence tests and statistical regression. There are exams after each section. (Prerequisite: MATH4003 or math entrance requirement fulfilled) Seven weeks

STAT4006 MANAGEMENT DECISION MODELS

This course focuses on model building using multiple regression analysis. The resulting models are used to aid management decision making. Exercises and cases involve a wide range of management problems. (Prerequisite: STAT4005) Seven weeks

MATHEMATICS

Program Faculty

Lawrence Morris, Ph.D., *Chair*
Natalia Sternberg, Ph.D., *Acting Chair*
Laura Bernhofen, Ph.D.
Jerry Breecher, Ph.D.
Arthur Chou, Ph.D.
Frederic Green, Ph.D.
Li Han, Ph.D.
David Joyce, Ph.D.
John Kennison, Ph.D.
Lee Rudolph, Ph.D.
Ping Xuan, Ph.D.

Program Overview

The department supports undergraduate majors and minors in computer science and in mathematics. The computer science program is described in the computer-science portion of this catalog. The department also offers courses that play an important role in other disciplines.

In keeping with liberal-arts traditions, Clark's mathematics major provides a solid education in mathematical principles for students who wish to apply mathematics in other fields and students who wish to pursue mathematics in graduate school. Clark mathematics majors have gone on to graduate school in pure mathematics, applied mathematics and computer science at such universities as Brown, Cornell, Johns Hopkins and NYU (Courant Institute). Graduates are employed in the public and private sectors as statisticians, mathematical modellers, and actuaries, as well as teachers from the elementary to university level.

The mathematics major, built around a core of fundamental courses, is best started early with calculus (MATH120-121 or MATH124-125) in the first year. Advanced electives provide some flexibility and allow students to tailor the major to their needs. Following the description of the requirements are suggestions for concentrations in pure mathematics, applied mathematics and actuarial science

The Mathematics Major

Department faculty are eager to help students select courses. If a major has not been declared earlier, it must be declared by the end of the sophomore year. Students should choose an academic adviser from the department faculty as early as possible, and in any case by the end of the sophomore year. Entering students enrolled in first-year seminars in programs outside mathematics, computer science or the natural sciences are especially encouraged to make a prompt choice of an unofficial secondary adviser in the Mathematics Department, who will be able to supplement the advice offered by their primary adviser.

Major Requirements

Core Courses: These courses are prerequisites for the advanced courses and should be taken as soon as possible.

Calculus sequence (MATH120-121-122 or MATH124-125)
MATH130 Linear Algebra
MATH131 Multivariate Calculus
MATH172 Introduction to Modern Analysis

Breadth Courses:

MATH225 Modern Algebra
Two math electives (MATH105, 114, 115, or any courses beyond MATH125)

Depth Courses:

Four additional courses at the 200 level, one capstone course to be selected with the major adviser (internships and reading courses will meet this requirement only with departmental approval.)

A total of twelve or thirteen courses, depending on student's choice of calculus sequence.

Mathematics Honors

A major who maintains at least a 3.2 average (4.0 scale) in courses required for the major may apply for the departmental honors program. A student's application in writing must be directed to a prospective honors adviser or the department chair by the end of the student's junior year. Honors may be achieved in one of two ways:

1. A unified four-course sequence as a senior (some parts of which may consist of reading courses), followed by a comprehensive examination.
2. An honors project to be presented at an oral defense or at a department seminar. This project may be an independent or joint research thesis, or it may be a programming project. Supporting course work may be required. Students interested in pursuing the honors program should consult their department adviser. The student registers for MATH299, Sec. 8, for course credit for an honors thesis.

Upon satisfactory completion of the program, the department may recommend graduation with honors, high honors or highest honors.

Mathematics Minor

The mathematics minor consists of the following: calculus sequence (MATH120-121-122 or MATH124-125); MATH130 Linear Algebra; MATH131 Multivariate Calculus; and two other mathematics courses (excluding MATH113 and MATH119), at least one of which must be 200 level. (Reading courses and internships are accepted only with departmental approval.) The two elective courses depend on the student's interest. For instance, a student interested in the physical sciences could take MATH172 Introduction to Modern Analysis and MATH244 Differential Equations, while MATH217-218 Probability and Statistics, and Topics in Statistics might be more appropriate for social sciences. See the department for further suggestions. Total: six or seven courses, depending on student's choice of calculus sequence.

Suggested Specializations in Mathematics

Pure mathematics is the study of mathematics as an end in itself. Many students are originally attracted to mathematics because of its powerful applications, but a taste for pure mathematics often develops after studying the subject. Students planning to study mathematics in graduate school should consider programs in either pure or applied mathematics. Suggested courses: MATH214 Modern Analysis, MATH216 Complex Analysis, MATH226 Modern Algebra II, and MATH228 Topology.

Applied mathematics is the study of mathematics as applied to the natural or social sciences. The heart of the field is modeling—translating aspects of natural or social phenomena into mathematical objects that can be studied with such mathematical tools as differential equations, linear systems and stochastic processes. Suggested courses: MATH212 Numerical Analysis; MATH214 Modern Analysis; MATH216 Complex Analysis; MATH217-218 Probability and Statistics and Topics in Statistics; and MATH244 Differential Equations.

Actuarial science is the study of finance and insurance. Study in this field requires a grounding in mathematics and statistics and an understanding of economics and business management. Suggested courses: MATH212 Numerical Analysis; MATH217-218 Probability and Statistics and Topics in Statistics; MATH244 Differential Equations; and appropriate courses in economics or business management.

Secondary Education Certificate in Mathematics Education

Certificate requirements include courses in education and in mathematics. Consult the Education Department for information on required courses in education and the most recent state guidelines. The mathematics department recommends the completion of a regular mathematics major, with MATH126 Elementary Number Theory and MATH128 Modern Geometry included as the two elective Breadth Courses.

Mathematical Services

The mathematics department offers courses to help students using mathematics as a tool for studying other areas. See MATH113 Mathematical Problem Solving and MATH217-218 Probability and Statistics, and Topics in Statistics. Outside the department, COPACE offers IDND017 Foundations of Quantitative Thinking.

Calculus

Calculus is an essential tool for every serious student of mathematics or the natural sciences. It also is used in economics and other disciplines. The Department of Mathematics offers two calculus tracks: MATH120-121-122 and MATH124-125.

Both tracks are open to first-year students with appropriate scores on the placement test. MATH124 is geared towards students who have had prior experience with (regular and AP) calculus. Strong students in the physical sciences are urged to start with MATH124. The Mathematics Department generally recommends that even students with a high AP score take MATH124. In exceptional circumstances, first-year students may enroll in MATH130.

Mathematics Placement Test

All students who intend to take mathematics courses or who need to satisfy the University's mathematics proficiency requirement (with the exception of students with advanced-placement credit in calculus) must take the mathematics placement test given during orientation and preregistration. Based on placement test scores, some students will be required to pass IDND017 Foundations of Quantitative Thinking, offered through COPACE before they enroll in a formal-analysis course. Other students, who place at levels ranging from precalculus through MATH124, must begin in a course corresponding to their placement test scores. This course must not be higher or lower than the test score indicates. Students may challenge their placement by taking backup placement tests. (For more information about the University's mathematical and quantitative-thinking requirements, see page 6.)

Courses

MATH105 History of Mathematics/Lecture, Discussion

Explores major themes—calculation, number, geometry, algebra, infinity—and their historical development in civilizations ranging from the antiquity of Babylonia and Egypt through classical Greece, the Middle and Far East and then modern Europe. Analyzes the tension between applications of mathematics and the tendency toward formalism. Emphasizes presentations and discussions. Satisfies the historical perspective. Mr. Joyce/Offered periodically

MATH113 Mathematical Problem Solving/Lecture, Workshop

Intended for students who will use mathematics in such subjects as management and the social sciences, but who are not necessarily planning to go on to calculus. MATH113 cannot be used as a prerequisite for either calculus sequence, and does not satisfy any requirement of either the major or the minor in mathematics or computer science. Covers some precalculus topics (algebraic manipulations, functions and graphs, exponentials and logarithms), but major emphasis is on mathematical analysis of concrete situations (word problems, mathematical modeling, exponential growth, applications of linear systems, elementary probability). Prerequisites: A suitable score on the mathematics placement test. Staff/Offered every semester.

MATH114 Discrete Mathematics/Lecture

Covers mathematical structures that naturally arise in computer science. Includes elementary logic and set theory, equivalence relations, functions, counting arguments, asymptotic complexity, inductively defined sets, recursion, graphs and trees, Boolean algebra and combinatorial circuits, finite state automata, and diagonalization and countability arguments. Emphasizes proofs and problem solving. Prerequisite: One semester of calculus (MATH120 or 124) or CSCI101. Mr. Chou, Mr. Green, Mr. Joyce/Offered every semester

MATH119 Precalculus Mathematics/Lecture, Discussion

Intended for students who plan to go on to calculus. MATH119 is to be used, when necessary, as preparation for MATH120 or MATH124 and does not satisfy any requirement of either the major or the minor in mathematics or computer science. Students should have a solid grasp of elementary algebra. Covers more advanced algebraic techniques (linear and nonlinear inequalities, quadratic equations, linear systems) and gives a rigorous look at elementary functions (polynomial, exponential, logarithmic, trigonometric). Prerequisites: A suitable score on the mathematics placement test. Staff/Offered every spring.

MATH120/MATH121/MATH122 Calculus I, II, III/Lecture

Calculus is essential for majors in biology, chemistry, computer science, mathematics, physics, and environmental science and policy. Part I includes functions, limits, continuity, differentiation of algebraic and trigonometric functions, mean-value theorem and various applications. Part II includes Riemann sums and integrals, techniques and applications of integration, improper integrals, transcendental functions (logarithms, exponential functions and inverse trigonometric functions). Part III includes further topics from calculus proper (sequences, series, polar coordinates) and introduces linear algebra (vectors, matrices and linear systems). Though not all results are derived rigorously, care is taken to distinguish intuitive arguments from rigorous proofs. MATH120, 121, and 122 fulfill the formal-analysis requirement. MATH122 is a prerequisite for MATH131 for students who have taken MATH120, 121. Prerequisite for MATH120: appropriate score on the mathematics placement test or appropriate grade in MATH119. Ms. Bernhofen, staff/Offered every fall (120, 122) and spring (121).

MATH124/MATH125 HONORS CALCULUS I, II/LECTURE

Two-course sequence for strong students with interest in mathematics, computer science, physics, and other natural sciences. Physics majors usually take MATH124 simultaneously with PHYS120 and MATH125 simultaneously with PHYS121. Previous experience with calculus is recommended but not required. The honors calculus sequence covers much the same topics from calculus as the regular sequence (MATH120, 121, 122), but takes two semesters instead of three, and emphasizes both mathematical rigor and physical intuition. MATH124 and MATH125 fulfill the formal-analysis requirement. Prerequisite: appropriate score on the mathematics placement test. Mr. Morris, Ms. Sternberg/Offered every fall (124) and spring (125).

MATH126 ELEMENTARY NUMBER THEORY/LECTURE

Introduces number theory and trains students to understand mathematical reasoning and to write proofs. Includes the unique factorization of integers as products of primes, the Euclidean algorithm, Diophantine equations, congruences, Fermat's theorem and Euler's theorem (and some applications: calendar problems, magic squares, cryptology). Prerequisite: MATH114, or one semester of calculus (MATH120 or 124), or permission. Mr. Morris/Offered periodically

MATH128 MODERN GEOMETRY/LECTURE

Recalls Euclidean geometry and then proceeds to modern related topics: Hilbert's axioms; hyperbolic (Lobachevskian), elliptic and projective geometries, and philosophical implications of geometries without the Parallel Postulate; finite geometries; automorphism groups (Klein's Erlanger Programme). One aim is to show the beauty of deduction in mathematics. Prerequisites: high-school geometry and either a semester of college mathematics or permission. Mr. Joyce, Mr. Rudolph/Offered periodically

MATH130 LINEAR ALGEBRA/LECTURE

A requirement for all mathematics majors; highly recommended for all computer-science majors. Topics include vector spaces, systems of linear equations, linear transformations, dual spaces, eigenvectors and eigenvalues, determinants and bilinear forms. Possible additional topics include applications to computer graphics, linear regression (least squares), Fourier series and differential equations. Prerequisite: MATH121 or 125. Mr. Rudolph, Ms. Sternberg/Offered every fall

MATH131 MULTIVARIATE CALCULUS/LECTURE

A continuation of calculus (MATH120, 121, 122 or MATH124, 125). Topics include partial differentiation, multiple integration, and theory and practice of integration over parametrized curves and surfaces, culminating in Stokes' Theorem. Prerequisites: MATH122 or MATH130. Mr. Chou, Ms. Sternberg/Offered every spring.

MATH172 INTRODUCTION TO MODERN ANALYSIS/LECTURE

Modern analysis provides a language and unifying framework for theories encountered throughout mathematics. In this course, students learn to understand, formulate and prove mathematical statements. Ideas first encountered in calculus—convergence, completeness and integration—are studied in depth. Other topics include metric spaces, normed spaces, compactness and measure theory (Lebesgue integration). Required for mathematics majors by the junior year, and earlier if possible. Prerequisite: MATH122 or MATH125. Mr. Chou, Ms.Sternberg/Offered every year

MATH201 PROSEMINAR IN MATHEMATICS/SEMINAR

Senior undergraduates study and speak on topics in mathematics to become acquainted with diverse subjects, learn to research known topics and get practice in presenting mathematics to peers. Faculty present their research areas. Possible topics include: category theory, knot theory, automorphic forms, topos theory, low-dimensional topology, class field theory, group representation theory and dynamical systems. This is a capstone course in mathematics. Staff/Offered periodically

MATH212 Numerical Analysis/Lecture, Laboratory

Introduces concepts and techniques of scientific computing to students in mathematics, computer science and the sciences. Teaches how to set up reasonable computational algorithms and use the algorithms to work on actual projects. Topics include approximation theory, error analysis, numerical differentiation and integration, and solution of ordinary differential equations and linear systems. Prerequisites: MATH130 and MATH172. Mr. Chou, Ms. Sternberg/Offered every other year

MATH214 Modern Analysis/Lecture

Ideas introduced in MATH172 are developed and applied to scientific models. Topics include Hilbert spaces, Lp spaces, Fourier series, Weierstrass approximation theorems and linear operators. Prerequisites: MATH130 and MATH172. Mr. Chou, Ms. Sternberg/Offered every other year

MATH216 Functions of a Complex Variable/Lecture

Designed for undergraduate science and mathematics majors. Includes Cauchy's theorem, power series, Laurent series, the residue theorem, harmonic functions and physical applications, such as problems in two-dimensional flow. An introduction to Riemann surfaces if time permits. Prerequisite: MATH131 and MATH172. Mr. Rudolph/Offered periodically

MATH217/ECON360 Probability and Statistics/Lecture

An introduction to probability theory and mathematical statistics that emphasizes the probabilistic foundations required to understand probability models and statistical methods. Topics covered will include the probability axioms, basic combinatorics, random variables and their probability distributions, mathematical expectation and common families of probability distributions. Prerequisite: MATH131. Ms. Bernhofen/Offered every year.

MATH218 Topics in Statistics/Lecture

The emphasis of this course is to develop the fundamental statistical concepts of inference and hypothesis testing from a classical perspective using the tools of probability theory. Topics investigated include sampling and sample distributions, graphical data analysis, point and interval estimation, hypothesis testing and an introduction to Bayesian inference. Prerequisite: MATH217 or ECON260. Ms. Bernhofen/Offered periodically.

MATH219/ECON365 Linear Models/Lecture

A course in linear regression analysis, which explores statistical methods for modeling a linear functional relationship between a response variable and one or more predictor variables. First the underlying theory for simple regression models involving one response and one predictor variable is developed, and then the results are extended to the case of one response variable and multiple predictor variables (multiple regression). Underlying model assumptions are explored and the implications of their violation. Besides the development of the statistical theory, we will emphasize the practical application of the theory to real world examples. The prerequisite for this course is MATH217.

MATH225 Modern Algebra I/Lecture

In the 19th century, Kummer introduced "ideal numbers" to salvage unique factorization of integers into primes (which breaks down in some rings of algebraic integers). This course discusses unique factorization and the modern theory of rings and their ideals, emphasizing Euclidean domains. Other algebraic structures (groups, fields) also are introduced. Required for all mathematics majors. Prerequisite: MATH130. Mr. Morris, Mr. Joyce/Offered every year

MATH226 Modern Algebra II/Lecture

In the early 1800s, Abel showed that a general equation of degree at least five couldn't be solved by extracting roots. Today, group theory, developed by Galois to determine which equations are solvable, is used throughout mathematics and in much of physics and chemistry. This course focuses on groups and Galois theory. Other possible topics include canonical forms of matrices and modules. Prerequisite: MATH225. Mr. Joyce, Mr. Morris/Offered every other year

MATH228 TOPOLOGY/LECTURE
Homology theory is the proper context for Stokes' theorem (MATH131). This course continues the study (begun in MATH131 and MATH172) of the topological properties of subsets of Euclidean space, developing algebraic tools like homology and fundamental groups. Further topics may include fixed-point theory, the Jordan curve theorem and knot theory. Prerequisites: MATH131 and MATH172. Mr. Rudolph/Offered every other year

MATH244 DIFFERENTIAL EQUATIONS/LECTURE
Most ordinary differential equations occurring in mathematical models of physical, chemical and biological phenomena cannot be solved analytically. Numerical integrations do not lead to a desired result without qualitative analysis of the behavior of the equation's solutions. This course studies the flows of scalar and planar ordinary differential equations. Stability and bifurcation are discussed. Prerequisite: MATH130 and MATH172. Ms. Sternberg/Offered every other year

See Computer Science
CSCI270 Theory of Computation

MUSIC

(See Visual and Performing Arts).

PHILOSOPHY

Program Faculty

Judith DeCew, Ph.D., *Chair*
Patrick Derr, Ph.D.
Scott Hendricks, Ph.D.
Gary Overvold, Ph.D.
Michael Pakaluk, Ph.D.
Walter Wright, Ph.D.

Part-time Faculty

Barbara Carlson, C.Phil.

Affiliate Faculty

Bernard Kaplan, Ph.D.
Christina Sommers, Ph.D.

Program Overview

The Philosophy Department offers an undergraduate major program in philosophy, a concentration in ethics and public policy, a minor in philosophy, and a variety of elective courses, which nonmajors may take to broaden their education and fulfill Program of Liberal Studies requirements.

Major Requirements

The requirements for a major in philosophy are designed to ensure exposure to the major systematic fields in philosophy, to ensure familiarity with advanced analytic and logical methods, acquaint the student with the history of the discipline, and provide close faculty-student contacts through advanced seminars and individual research projects. The major program accommodates both general liberal-arts students as well as double majors and those students pursuing honors work as well as those considering graduate study in philosophy. Students, especially those considering graduate school, who wish a more intensive course of study toward the major should consult with department faculty and study the Philosophy Major Handbook in the department office.

1. Required courses in philosophy

- One course in formal logic (PHIL110)
- Two courses in the history of philosophy (PHIL141, 142, 143, or 145)

- One advanced course in the area of metaphysics (PHIL234 or 235)
- One advanced course in the area of epistemology (PHIL240 or 241)
- One advanced course in the area of ethics and social philosophy (PHIL220, 221 or 228)
- One advanced elective or above, chosen to complement the student's second major or intended professional field
- A designated capstone seminar

2. Required courses outside philosophy
Either: a completed double major; or a completed concentration (for example, environmental science and policy, ethics and public policy, women's studies, classics, ancient civilizations, Jewish studies or communications); or a completed minor in any other program or department.

Honors Program

Honors, high honors or highest honors in philosophy may be conferred at graduation upon majors who, in addition to having compiled a suitable record in the major, successfully defend their senior thesis in an oral presentation to their thesis committee. To be considered for honors, a student must have at least a 3.0 overall GPA combined with a higher GPA in philosophy. Students who complete a thesis but do not have an adequate GPA, or who otherwise don't meet honors requirements, will simply receive a grade (without an honors designation) for their senior thesis.

Department Prizes and Awards, and Student and Honor Societies

Each year, the department inducts its best junior and senior philosophy majors into Phi Sigma Tau, the national philosophy honor society. At the spring honors convocation, the department awards one or more prizes to exemplary graduating seniors. At the Fall convocation, the department confers a prize for the best work in logic by a first- or second-year student.

The Philosophy Club, a student organization, sponsors lectures, colloquia and informal educational and social activities for all interested Clark students.

Philosophy Minor

Students pursuing a minor in philosophy at Clark can choose one of two tracks. Each track requires six courses in philosophy and is designed to develop students' intellectual skills and to familiarize them with the fundamental methods of philosophical inquiry. Each track begins with a foundation in logic and practical ethics.

The Great Issues-minor track emphasizes a grounding in the history of philosophy. This track engages the student in the fundamental philosophical questions with which human beings have been perennially concerned: for example, Does God exist? How ought I to live? What is knowledge? Do human beings have free will? Can political authority be legitimated? Is there life after death?

The Optional Enriched-minor track emphasizes advanced work in courses related to students' majors. This track engages students in the fundamental philosophical questions, which their own major fields raise but do not answer: for example, What is a mind? What is a person? What is the nature of a profession? What is science? What is justice?

Requirements for the Great Issues-Minor Track

- One course in logic (PHIL103 or 110)
- One course in practical ethics (PHIL105, 130, 131, 132, 133 or 139)
- Three courses in the history of philosophy (PHIL141, 142, 143, 145, 148, 154 or 215)
- One advanced elective course (PHIL150+)

Requirement for the Optional Enriched-Minor Track

- One course in logic (PHIL103 or 110)
- One course in practical ethics (PHIL105, 130, 131, 132, 133 or 139)
- One course in the history of philosophy (PHIL141, 142, 143, 145, 148, 154 or 215)
- One elective course, chosen at any level
- Two advanced courses (PHIL150+) chosen to complement the student's major or pre-professional program.

Directed Readings, Individual Research, Tutorials

For significant independent research, the department offers individual Directed Research (PHIL299.2) and Directed Readings (PHIL299.1) courses, and Advanced Topics in Philosophy courses (PHIL299.7). Students interested in these possibilities should consult with individual members of the philosophy faculty.

Internships, Research Apprenticeships

Students are encouraged to apply for a research apprenticeship with an individual philosophy professor. Research apprentices work closely with their mentor on the mentor's scholarly research, sometimes co-authoring a published article. Some recent topics have been: ethical issues in reproductive technology; privacy in law and ethics; and statistical stylometry and ancient philosophy. Philosophy faculty also sponsor off-campus undergraduate internship experiences. Students interested in these opportunities may inquire at the department or through the internship office.

Senior Thesis

Undergraduate majors are encouraged to complete a senior thesis (PHIL299.8); majors intending graduate study especially should consider this. Thesis students engage in advanced individual research on a selected philosophical problem, guided by a faculty adviser and a thesis committee composed of three faculty members. See 299.8 for more information.

Professional Organizations

The department has the Massachusetts Alpha Chapter of the national philosophy honor society, Phi Sigma Tau. In addition to awarding membership to academically exceptional majors, the society also sponsors speakers and colloquia.

The department is a founding member of the Boston-area Colloquium in Ancient Philosophy. The organization sponsors lectures and seminars at the various member college campuses.

Departmental Publications

The international philosophical journal, Idealistic Studies, is edited by Gary Overvold. Founded by Robert N. Beck, Idealistic Studies is a leading interdisciplinary journal focusing on issues of contemporary European philosophy and idealism.

Courses

PHIL100 The Good Life/First-Year Seminar

As human beings, we all want to live good lives. We want to be happy and avoid suffering. But what can a person do to have a "good life"? What makes one life "good" and another life "not good"? Does luck play a role in making a life good? These questions have been at the core of what philosophers call "ethics" for more than 2,000 years. In this seminar, we will use philosophical, biographical and literary works to explore some of the ways that we particular human beings organize our lives, set fundamental goals and values that we seek to realize and try to assess what constitutes a "good life." Our seminar will examine a range of possible life aims including the search for pleasure, cultivating wealth and power, contributing to the public good, seeking spiritual fulfillment and having no aim at all.

PHIL102 Introduction to Philosophy/Lecture, Discussion

Introductory study of typical problems drawn from philosophy's main branches. Topics include God's existence, the nature of morality, skepticism, freedom vs. determinism, immortality and political theory. Readings are taken from both classic and contemporary sources. Mr. Overvold, Mr. Derr, Mr. Pakaluk, Mr. Hendricks/Offered every year

PHIL103 ANALYTIC REASONING/LECTURE, DISCUSSION

Analysis of argumentative essays (drawn from newspapers, philosophical works, legal journals and popular magazines) on such topics as affirmative action, the problem of evil, the nature of law, scientific method, etc. Students learn to read, write and think in a more analytical and critical manner. Ms. Carlson/Offered every semester

PHIL104 THE AIDS PANDEMIC/FIRST-YEAR SEMINAR

The Human Immunodeficiency Virus (HIV) and the Acquired Immune Deficiency Syndrome (AIDS) present American society with a public-health challenge of unprecedented dimensions—a challenge, which will test not only our scientific and medical establishments, but our commitment to social justice, professional fidelity and interpersonal solidarity. This seminar will draw on the rich philosophical, biological, epidemiological, legal, medical and sociological literatures in order to examine a number of the moral and public-policy issues, which have been raised by the HIV epidemic. Particular attention is given to the issues raised by the international nature of the pandemic. Mr. Derr/Offered every other year

PHIL105 PERSONAL VALUES/LECTURE, DISCUSSION

A philosophical study of some fundamental human value concerns. Students learn some important moral theories and methods used to reason philosophically about moral questions. Ms. Carlson, Ms. DeCew, Mr. Wright/Offered every semester

PHIL106 SCIENCE, RELIGION AND REALITY/FIRST-YEAR SEMINAR

This seminar will address some basic issues in the philosophy of science and the philosophy of religion: What is science? What is reality? How do science and religion differ with regard to the relative roles played by faith and evidence in establishing knowledge claims about reality? Does science provide better explanations than theology or literature? How do religious arguments for the existence of God differ from scientific arguments for the existence of black holes? Special attention will be given to developing students' abilities to read complex texts, write logically, think analytically and argue cogently. Mr. Derr/Offered every other year

PHIL107 LOGIC AND LEGAL ANALYSIS/LECTURE, DISCUSSION

Gives students a strong grounding in modern logic to use the techniques of formal logic for the analysis and evaluation of legal arguments (including examples relevant to the LSAT exam) and, generally, aids students in improving their analytical skills. Ms. Carlson/Offered every year

PHIL108 PRIVACY, PROTECTION IN LAW AND ETHICS/FIRST-YEAR SEMINAR

This course will survey the history of privacy protection as it has evolved in American tort law and constitutional law. Students will analyze alternative philosophical characterizations of privacy and its scope, focusing on information, autonomy, property and intimacy. The varied reasons for valuing privacy will be assessed and contrasting versions of the feminist critique of privacy as a tool for shielding abuse will be considered. Throughout the course, study will focus on landmark legal cases invoking privacy from the early 1900's to the present, with an eye toward understanding the scope and limits of privacy protection. Also considered will be numerous applications of privacy to moral and legal issues including the legislation of morals, drug testing and information technologies. Ms. DeCew/Offered every year

PHIL109 LIFE/TIMES OF DAVID HUME/FIRST-YEAR SEMINAR

A study of the philosophy of the famous skeptical Scottish philosopher, David Hume. We look at his arguments denying the reality of cause and effect, laws of nature, free will, mira-

cles and the existence of God. We also study replies to and criticisms of Hume's thought, especially those raised by his most formidable critic, his fellow Scotsman, Thomas Reid. Both Hume and Reid are viewed in the context of the remarkable 18th c. renaissance called the Scottish Enlightenment. The course is an excellent introduction to philosophy and to liberal studies generally, because of its emphasis on logical thought and good writing.
Mr. Pakaluk/Offered every year

PHIL110 INTRODUCTION TO LOGIC/LECTURE, DISCUSSION

An introduction to modern symbolic logic with attention to its application in analyzing ordinary language arguments. Mr. Hendricks, Mr. Pakaluk, Ms. Carlson/Offered every year

PHIL111 PERSONS, ROBOTS AND APOCALPYSE/ FIRST-YEAR SEMINAR

Examination of the place of human beings in the present world. We discuss various modern visions of human beings—political, scientific and religious. Readings include accounts of the Nazi holocaust, current literature in psychology, and both fiction and film exploring the idea that people are essentially machines.
Mr. Hendricks/Offered every year

PHIL125 ATHEISM AND BELIEF IN GOD

The goal of this course is to introduce students to two basic worldviews—the atheistic worldview and the theistic worldview—and to help them find reasonable grounds for deciding upon the one or the other. In looking at these, the course also introduces students to some of the most important movements in thought shaping the last century. Mr. Pakaluk/Offered periodically

PHIL130 MEDICAL ETHICS/LECTURE, DISCUSSION

Investigates contemporary issues in medical ethics: informed consent, definitions of death, treatment termination and euthanasia, abortion, confidentiality and truth telling, genetic screening and counseling, research on human subjects, resource allocation, reproductive technologies, conflicts of interest and national health policy. Not open to first-year students.
Mr. Derr/Offered every year

PHIL131 ENVIRONMENTAL ETHICS/LECTURE, DISCUSSION

What principles should guide human interaction with the environment? This course considers a range of moral perspectives, including anthropocentrism, animal-rights theory, biocentrism, social ecology, ecocentrism, deep ecology, ecofeminism and the land ethic. It also considers a range of environmental issues, such as global warming, species preservation, population policy, pollution, global warming and sustainable development. Mr. Derr/Offered every year

PHIL132 SOCIAL AND POLITICAL ETHICS/ LECTURE, DISCUSSION

Topics in social and political theory, such as equality, liberty and justifications for political authority, as well as issues such as: What is affirmative action and can it be morally justified? Should governments censor pornography? Is capital punishment acceptable? Can war be justified? Should morality be legislated?
Ms. DeCew, Offered every year

PHIL133 BUSINESS ETHICS/LECTURE, DISCUSSION

Investigates moral problems in and about the world of business: Do corporations have moral responsibilities or is their only social responsibility to increase profits? Is capitalism morally justifiable or is some other politico-economic system morally preferable? Discusses ethical issues in advertising, affirmative action and business's responsibilities toward the environment. Staff/Offered periodically

PHIL134 LIBERALISM AND ITS CRITICS/LECTURE, DISCUSSION

After a basic introduction to the liberal political theory of John Rawls, the course examines his recent critics to investigate whether and how conservative political thought offers a viable alternative to liberalism. Mr. Pakaluk/ Offered periodically

PHIL135 EXISTENTIALISM IN PHILOSOPHY, LITERATURE AND THE HUMAN SCIENCES/LECTURE, DISCUSSION

Explores central existential themes—such as the meaning of life, freedom and responsibility; the role of the irrational in human thought, action and expression; and the death of God in their historical, cultural and thematic context. Existentialism is treated both as a postwar cultural event and as a view of life's meaning and possibilities. Mr. Overvold /Offered every year

PHIL136 THE LIFE AND TIMES OF DAVID HUME/ LECTURE, DISCUSSION

On examination of Hume's "Enquiry Concerning Human Understanding" in relation to the Scottish Enlightenment and the criticisms of Reid. Mr. Pakaluk/Offered periodically

PHIL139 MORAL PROBLEMS IN THE PROFESSIONS/LECTURE, DISCUSSION

This course examines moral issues and dilemmas typically found in the professions, that is, in law, medicine, advertising, therapy, business, education, etc. Among the issues considered are privacy and confidentiality, truthfulness and deception, individual responsibility, social justice, professionalism, and generally, the dilemmas created by conflicts between professional or role morality and personal or ordinary morality. Mr. Overvold/Offered periodically

PHIL141 HISTORY OF ANCIENT GREEK PHILOSOPHY/LECTURE, DISCUSSION

Examines the origins of Western thought in early Greek philosophy. Readings include the fragments of the pre-Socratic philosophers: the Apology, Phaedo, Gorgias and Republic of Plato; and selections from Aristotle.
Mr. Pakaluk, Mr. Hendricks/Offered every year

PHIL142 HISTORY OF MEDIEVAL PHILOSOPHY/ LECTURE, DISCUSSION

Surveys Christian, Jewish and Islamic medieval philosophy with special attention to some of the philosophical texts that were pivotal to the later development of Western philosophy and culture. These include Augustine's Confessions, Boethius' Consolation of Philosophy and Aquinas' Summa Contra Gentiles. Mr. Pakaluk/Offered periodically

PHIL143 HISTORY OF MODERN EUROPEAN PHILOSOPHY/LECTURE, DISCUSSION

The two great movements in modern Western thought—Continental Rationalism and British Empiricism—are examined from their common origin in Descartes, through their later articulations by Spinoza, Locke, Berkeley, Leibniz and Hume, to their eventual transformation by Immanuel Kant. Emphasis is on the interaction of philosophy and science and on the powerful influence exerted by the modern European thinkers upon contemporary thought.
Mr. Wright/Offered every year

PHIL145 HISTORY OF CONTEMPORARY PHILOSOPHY/LECTURE, DISCUSSION

Surveys the major trends in recent Anglo-American and Continental philosophy: pragmatism, logical positivism, ordinary language philosophy, hermeneutics, and phenomenology. Each alternative is considered as a coherent perspective on experience, with special attention given to its style and methodology. Prerequisite: PHIL143 or permission of the instructor. Mr. Overvold/Offered every year

PHIL148 HISTORY OF AMERICAN PHILOSOPHY/ LECTURE, DISCUSSION

Concentrates on the founders of the first indigenous American philosophical movement, pragmatism—Peirce, James and Dewey-and explores their influence on later pragmatists—Lewis, Quine and Rorty. Prerequisite: one course in philosophy. Staff/Offered periodically

PHIL150 PHILOSOPHY OF RELIGION/LECTURE, DISCUSSION

Studies religion as a form of worldview and a perennial dimension of human experience. Prerequisite: one course in philosophy.
Mr. Wright/Offered every year

PHIL154 RECENT EUROPEAN PHILOSOPHY/ LECTURE, DISCUSSION

Introduces five contemporary European philosophical movements: hermeneutics, deconstructionism, critical theory, structuralism and poststructuralism. Prerequisite: two courses in philosophy or permission of instructor.
Mr. Overvold/Offered periodically

PHIL160 INTERMEDIATE LOGIC/LECTURE, DISCUSSION

An examination of one of the following: extensions of first-order logic (modal logic, deontic logic, tense logic); metalogic; axiomatics; philosophical problems that arise in connection with formal logic. Mr. Pakaluk/Offered periodically

PHIL169 AESTHETICS/LECTURE, DISCUSSION

Why did Plato condemn poets and their work? Can art be neatly defined? Is art "imitation," "emotion," "relations of forms" or is it indefinable? Are there standards of beauty? Among the theories we consider are those of Aristotle, Tolstoy, Collingwood, Danto, Dickie and Kant. Prerequisite: one course in philosophy.
Mr. Hendricks/Offered periodically

PHIL170 PHILOSOPHY OF PSYCHOLOGY/LECTURE, DISCUSSION

A philosophical consideration of central concepts and major theories in psychology.
Mr. Hendricks/Offered periodically

PHIL171 PHILOSOPHY OF EDUCATION/LECTURE, DISCUSSION

An examination of our educational institutions, the value of education and various theories of education. Focus on such questions as: What kinds of educational institutions are possible? Which ones are best? What does it mean to be educated? What is the value of being educated? We will approach these questions through the works of Marx, Plato, Rousseau and others. In addition, we consider the application of research in psychology and social psychology. Mr. Hendricks/Offered every year

PHIL201 SURSEMINAR: RESEARCH AND WRITING IN PHILOSOPHY/SEMINAR

Prerequisite: permission. Staff/Variable credit

PHIL202 SURSEMINAR: PHILOSOPHICAL JOURNALS/SEMINAR

Prerequisite: permission. Staff/Variable credit

PHIL203 SURSEMINAR: TEACHING PHILOSOPHY/ SEMINAR

Registration is limited to students working as discussion group leaders in PHIL102, 105, 110, 130, 131 or 132. Mr. Derr, Ms. DeCew, Mr. Hendricks, Mr. Pakaluk, Mr. Wright/Offered every semester

PHIL210 MODERNISM IN PHILOSOPHY, LITERATURE AND THE ARTS/LECTURE, DISCUSSION

Between 1890 and 1930, the forms of inquiry and artistic expression in Western culture went through radical, foundational transformation. Using representative texts from the humanities and the arts, this course examines the Modernist transformation in its historical, cultural and thematic context, using a multidisciplinary perspective to integrate topics in related areas of inquiry and expression. Prerequisite: two courses in philosophy plus courses in related areas. Mr. Overvold/Offered periodically

PHIL211 COGNITIVE SCIENCE/LECTURE, DISCUSSION

Focuses on the assumption that the mind is a machine that can be studied scientifically. This involves an examination of the twin ideas that the mind is a computer and that an artificial computer could have a mind. Also, we examine various proposals for how the mind is structured-specifically, the "digital computational" approach and connectionist (PDP) architectures. Our examination attends to research in artificial intelligence, cognitive psychology, neuroscience and philosophy. Mr. Hendricks/ Offered periodically

PHIL212 PHILOSOPHY AND THE HUMAN SCIENCES/LECTURE, DISCUSSION

Using texts from both the humanities and the social sciences, the course examines central philosophical themes in the human sciences-rationality; action, choice and character; human nature; the other; self and society; explanation and human action—in their historical, cultural and thematic context, integrating topics in related areas of inquiry and expression. Prerequisite: two courses in philosophy plus courses in related areas.
Mr. Overvold/Offered periodically

PHIL213 THE IDEAL OF THE EDUCATED PERSON/ SEMINAR

This course presents the models of humanity, which have been dominant in Western culture. It encourages us to understand, reflect upon and discuss the competing ideals that influence the formation of educational goals, determine the purpose of public policy and shape our reflections on self-understanding. Mr. Overvold, Mr. Hendricks/Offered periodically

PHIL215 KANT AND THE 19TH CENTURY/ LECTURE, DISCUSSION

Examines the work of Kant and selected later philosophers (Fichte, Hegel, Schopenhauer, Nietzsche, Marx, Engels and Comte) with emphasis on their influence on contemporary thought. Prerequisite: two courses in philosophy, including PHIL143. Mr. Wright/Offered every other year

PHIL219 FEMINIST THEORY/LECTURE, DISCUSSION

Investigates selected topics in recent feminist philosophical literature. Topics and authors vary each year. Attention is given to the many different perspectives included in contemporary feminist theory. Prerequisite: two courses in philosophy or permission of the instructor. Staff/Offered periodically

PHIL220 THEORIES OF ETHICS/LECTURE, DISCUSSION

Examines the principal ethical theories from the history of Western philosophy, including such philosophers as Plato, Aristotle, Epicurus, Aquinas, Hobbes, Hume, Kant, Mill, Ross and Rawls. Topics include: What is "the Good"? Are there fundamental standards of right conduct? Are moral judgments objective? Why should we be moral? Prerequisite: two courses in philosophy. Ms. DeCew/Offered every year

PHIL221 SOCIAL AND POLITICAL PHILOSOPHY/ LECTURE, DISCUSSION

Surveys the leading philosophical accounts of social and political institutions. Property, civil and natural rights, freedom and obligations and the legitimation of political authority are treated in detail. Readings include both classical and contemporary sources. Prerequisite: two courses in philosophy. Ms. DeCew/Offered every other year

PHIL228 CONTEMPORARY MORAL THEORY/ LECTURE, DISCUSSION

Surveys recent work in moral theory (including both metaethical and normative issues) by leading Anglo-American philosophers. Prerequisite: two courses in philosophy. Ms. DeCew, Mr. Pakaluk/Offered periodically

PHIL232 CASE STUDIES IN ENVIRONMENTAL ETHICS/SEMINAR

An intensive examination of a small set of issues or cases chosen by course members. Recent topics include old growth forest, ecotourism, animal experimentation, alien species and water use restrictions. Prerequisite: Environmental Ethics. Mr. Derr/Offered every other year

PHIL234 METAPHYSICS/LECTURE, DISCUSSION

An advanced study of fundamental problems in metaphysics: universals, substance, the mind/body relation, category theory, identity and individuation, free will and the nature of space and time. Prerequisite: two courses in philosophy. Mr. Pakaluk, Mr. Wright/Offered every other year

PHIL235 SELF AND NATURE/LECTURE, DISCUSSION

Considers various conceptions of the self in relation to nature developed by classical and contemporary thinkers, with emphasis on the interconnectedness of these terms. Prerequisite: two courses in philosophy. Mr. Wright/Offered every other year

PHIL240 EPISTEMOLOGY/LECTURE, DISCUSSION

Studies the nature, concept and sources of knowledge, with special attention to the interrelationships among belief, knowledge, evidence, proof, truth, and the problem of relativism, skepticism and foundationalism. Prerequisite: two courses in philosophy. Mr. Overvold, Mr. Hendricks/Offered every year

PHIL241 PHILOSOPHY OF SCIENCE/LECTURE, DISCUSSION

Examines such questions as: What is a scientific explanation? Can induction be justified? What could justify the claim that one theory is better than another? Are there such things as objective facts? Do scientific theories disclose the ultimate constituents of the universe? What is the difference between science and pseudoscience? Prerequisite: four courses in natural sciences or two courses in philosophy. Mr. Derr/Offered every other year

PHIL242 PHILOSOPHY OF LANGUAGE/LECTURE, DISCUSSION

A philosophical examination of language. Explores general questions such as: What is the relationship between language and the world? What is the relationship between language and thought? Focuses on the nature of reference, meaning, names, conceptual schemes and analyticity. We will read works by Frege, Russell, Grice, Quine, Kripke and Kaplan.
Mr. Hendricks/Offered periodically

PHIL250 PLATO/SEMINAR

An advanced study of the philosophical thought of Plato. The seminar involves careful reading and discussion of one of the major dialogues, such as the Parmenides, Sophist or Theaetetus. Prerequisite: PHIL141.
Mr. Pakaluk/Offered every other year

PHIL251 ARISTOTLE/SEMINAR

An advanced study of the philosophical thought of Aristotle. The seminar involves careful reading and discussion of one of the major works, such as the De Anima, Physics, Metaphysics and Nicomachean Ethics. Prerequisite: PHIL141. Mr. Pakaluk/Offered every other year

PHIL256 KANT/SEMINAR

A study of Kant's "Critique of Pure Reason," regarded by many as the most important philosophical text of the last several hundred years. Prerequisite: two courses in philosophy, including PHIL143. Mr. Wright/Offered periodically

PHIL257 HEGEL/SEMINAR

Hegel's "The Phenomenology Mind" and selections from his other works are covered. Prerequisite: two courses in philosophy, including PHIL143. Mr. Wright/Offered periodically

PHIL258 THE ORIGINS OF ANALYTIC PHILOSOPHY/SEMINAR

Examines the development of analytic philosophy through an intensive study of its three founding figures: Gottlob Frege, Bertrand Russell and Ludwig Wittgenstein. Readings include Frege's "Foundations of Arithmetic," Russell's "Mysticism and Logic" and Wittgenstein's "Tractatus Logico-Philosophicus." Prerequisite: two courses in philosophy, including PHIL110 or PHIL160. Mr. Pakaluk/Offered periodically

PHIL260 KIERKEGAARD AND NIETZSCHE/SEMINAR

Studies Kierkegaard and Nietzsche as seminal figures in 19th-century intellectual life and as sources of later 20th- and 21st-century philosophical developments. Particular attention is given to their views of human existence and of truth. Prerequisite: two courses in philosophy. Mr. Overvold/Offered periodically

PHIL263 PHILOSOPHY OF MIND/SEMINAR

A critical examination of the nature and concept of mind. We consider various issues from among the following: What is the relationship between the mind and the brain? What is the nature of consciousness? How do mental states represent the world? What is the structure of the Mind? Is the mind a machine?
Mr. Hendricks/Offered periodically

PHIL265 IDEALISM/SEMINAR

Detailed and advanced study of the major idealistic philosophers. Course topics and texts will vary. Mr. Wright/Offered every other year

PHIL266 CRITICAL RATIONALISM/SEMINAR

Focuses on the theories of knowledge, rationality and science advanced by such contemporary thinkers as Kuhn, Popper, Feyerabend, Laudan, Lakatos and Zahar. Prerequisite: two courses in philosophy, including PHIL241, or permission. Mr. Derr/Offered periodically

PHIL270 PHILOSOPHY OF LAW/SEMINAR

Examines fundamental questions in philosophy of law, such as: What is the source and purpose of law? What is the nature of judicial reasoning, and is it subjective or governed by some set of principles? How do alternative theories of law explain rights, duties, liability, responsibility and so forth? What is the relationship between liberty, privacy, and justice?
Prerequisite: two courses in philosophy.
Ms. DeCew/Offered every year

PHIL272 ADVANCED ISSUES IN MEDICAL ETHICS/SEMINAR

A rigorous investigation of two or three current controversies related to medicine, health policy and ethics. Readings include original materials from legal, medical and philosophical literature. Topics have included: surrogate motherhood, AIDS, xenogestation, stem-cell research and assisted suicide. Prerequisite: Medical Ethics. Mr. Derr/Offered every other year

PHIL275 PHENOMENOLOGY AND HERMENEUTICS/SEMINAR

Traces the development of two major 20th-century movements in continental philosophy. Edmund Husserl and Maurice Merleau-Ponty are focused on in Phenomenology: Hans Georg Gadamer in Hermeneutics. In both, collateral reading will present the historical context and development of each movement. Prerequisite: at least three courses in philosophy.
Mr. Overvold/Offered periodically

PHIL276 HEIDEGGER AND EARLY 20TH-CENTURY PHILOSOPHY/SEMINAR

Concentrates on developments in 19th- and 20th-century Continental philosophy, which influenced the main text of this seminar, Heidegger's "Being and Time." Attention also will be given to the broader cultural context and to parallel changes in American and British philosophy during the early 20th century. Prerequisite: at least three courses in philosophy. Mr. Overvold/Offered periodically

PHIL287 PHILOSOPHY OF THE SOCIAL SCIENCES/SEMINAR

A critical and intensive survey of the four alternative accounts of explanation, social reality and social science put forward by the neopositivist empericists, the phenomenologists, the neo-Wittgensteinians and the Continental hermeneuticists and critical theorists. Special attention is given to theories of explanation in history and in psychology. Prerequisite: at least four courses in philosophy or graduate status in a social science. Mr. Overvold, Mr. Kaplan, Mr. Pakaluk/Offered periodically

PHIL295 SENIOR THESIS/INDIVIDUAL PROJECTS

The prerequisites, which should be completed by the end of the student's junior year, are: (1) at least six courses in philosophy; and (2) submission and approval of a thesis proposal. The thesis proposal must describe the nature and scope of the proposed project, provide a bibliography of the principal sources the student expects to use, include a schedule for submission of first and final drafts to the adviser and the committee and be signed by the student's thesis adviser. Upon completion of the thesis, the department faculty schedules an oral defense for the student. For regulations for honors, see earlier entry. Offered for one or two credits over one or two semesters. Staff

PHIL299 SEC. 1 DIRECTED READINGS/INDIVIDUAL PROJECTS

PHIL299 SEC. 2 DIRECTED RESEARCH/INDIVIDUAL PROJECTS

See description and prerequisites under Major Requirements.

PHIL299 SEC. 5 RESEARCH APPRENTICESHIP/INDIVIDUAL PROJECTS

A research apprentice participates in the current professional research of her or his faculty sponsor. Students accepted as apprentices need initiative, perseverance and superior research and writing skills. Prerequisite: at least four courses in philosophy, permission of the instructor and approval of the department. Staff/Offered every semester

PHIL299 SEC. 7 ADVANCED TOPICS IN PHILOSOPHY/ INDIVIDUAL PROJECTS

Individual tutorials and supervised research on philosophical topics selected by the student and faculty sponsor. Prerequisite: at least four courses in philosophy and permission of instructor. Staff/Offered every semester

PHYSICS

Program Faculty

Christopher P. Landee, Ph.D., *Chair*
Charles Agosta, Ph.D.
S. Leslie Blatt, Ph.D.
John Davies, Ph.D.
Harvey Gould, Ph.D.
Arshad Kudrolli, Ph.D.
Ranjan Mukhopadhyay, Ph.D.

Adjunct Faculty

Daeg S. Brenner, Ph.D.
Rafael Bruschweiler, Ph.D.
Robert L. Goble, Ph.D.
Alan A. Jones, Ph.D.

Affiliate Faculty

George Phillies, Ph.D., Worcester Polytechnic Institute

Emeritus

Roy S. Andersen, Ph.D.
Christoph Hohenemser, Ph.D.
Roger P. Kohin, Ph.D.

Program Overview

Physics is the most fundamental of the sciences and is an important part of a liberal-arts education. Introductory courses are designed for students in all majors and provide a background in physical principles, the observation of natural processes, the logic and nature of science, and the diverse applications of physics. The introductory courses are:

1. **Scientific Perspective Courses.** PHYS020, 030, 140, ASTR001 and ASTR002 have no prerequisites and satisfy the scientific perspective requirement of the program of liberal studies. PHYS110 and 120 can be taken in satisfaction of either the scientific-perspective or formal-analysis requirement, but not both. PHYS111, 121, 127, 130 and 131, which also satisfy the scientific perspective, are primarily for science majors.
2. **Introductory Sequences.** Prospective science majors are urged to begin their study of physics during their first or second years. The department offers two sequences of introductory courses. PHYS110/111 is a two-semester, noncalculus-based survey of physics appropriate for the majority of science majors, including environmental science and policy majors and premedical/predental students. PHYS120/121/130 is a three-semester sequence, recommended for physics, chemistry and mathematics majors, which covers mechanics, electricity and magnetism, waves, and optics in more depth than the 110/111 sequence. Because PHYS121 discusses the subject matter more deeply, it is less comprehensive than PHYS111, and should be followed by PHYS130.
3. **Laboratory Courses.** PHYS110, 111, 120, 121, 127, 130, 131 and 219 offer laboratory experience. PHYS110 and 111 fulfill the physics laboratory requirement for premedical/predental students.

Major Requirements

A major in physics can be structured to meet the interests of individual students, including graduate study in physics, related sciences, engineering, and careers in environmental studies, management, government, law, medicine and teaching. During their first year, prospective physics majors are urged to enroll in PHYS120 and 121 and to consult the undergraduate physics adviser about their program of study. Physics major requirements consist of 14 common core courses and four additional approved courses in physics or related areas. The requirements are flexible and, through consultation with the undergraduate physics adviser, may be modified to satisfy the particular needs and interests of each student. Examples of individual programs include:

General Physics—for students, who wish to major in physics as part of liberal-arts education, including preparation for careers in teaching or business.

Preprofessional Physics—courses in physics, chemistry and mathematics to prepare students for graduate study in physics or research in industry.

Biological Physics—includes chemistry and biology courses that can be used to prepare for medical or dental schools or for careers in the biomedical professions.

Computational Physics—advanced courses in physics, computer science and mathematics designed to prepare students for graduate study in the rapidly growing area of computational science.

Students interested in using physics as the basis for an engineering career should inquire about the 3/2 Engineering Program offering students a five-year option that combines a B.A. from Clark and a B.S. in engineering from Columbia University, Washington University (St. Louis) or Worcester Polytechnic Institute.

Courses in the core curriculum include:

1. Introductory Physics: PHYS120 and PHYS121 (or PHYS110/111)	2
2. Intermediate-level Physics: PHYS130 and 131	2
3. Calculus: MATH124, 125, 130 and 131	4
4. Laboratory-based courses: PHYS127 or 219	1
5. Upper-level courses: PHYS150, 160, 161 and 171	4
6. Senior project: PHYS299	1
Total in Core Curriculum:	14
Additional approved electives:	4
Total in Major Program:	18

Students with strong backgrounds in physics and mathematics may replace lower-level required courses with appropriate advanced courses with adviser approval. Advanced placement credits may count toward major requirements. Advanced undergraduates may take graduate-level courses. Majors must meet with the undergraduate physics adviser prior to registration every semester to plan their course of study and to ensure that all requirements for the major are being satisfied. It is possible to complete all requirements for the major within three years, so that it is not essential to begin the study of physics in the first year.

Information about career opportunities and further information about courses and major requirements can be obtained from the undergraduate physics adviser and other physics faculty members.

The Capstone Experience

An independent research project is the appropriate capstone experience for most physics majors. Students are encouraged to "do physics" at the earliest opportunity. Majors must take a capstone course satisfied by one semester of PHYS299 Directed Study in Physics, or an approved course of comparable scope. Near the end of the junior year (or earlier) a physics major should choose a topic for his or her senior project with department faculty. Work is conducted under the guidance of a faculty member, often with the assistance of graduate students. These projects often lead to publication in refereed physics journals. Majors with a special interest in research may continue their research by enrolling in additional semesters of PHYS299.

Honors Program

Students can apply for departmental honors in recognition of meritorious academic achievement and creativity in research. An honors candidate must maintain a minimum overall B-average. All eligible majors are encouraged to participate. Written applications should be submitted to the undergraduate adviser by the end of the junior year. Candidates will conduct a research project under faculty member guidance during the junior and/or senior years. A thesis describing the work must be submitted no later than April 1 of the senior year and be defended orally in a special departmental convocation about two weeks later. Recommendation for honors in physics is made on the basis of the quality of the thesis and student performance in the defense. Students may gain credit for thesis research by registering for PHYS299.

Physics Minors

The requirements for a minor in physics include six courses consisting of PHYS120/PHYS121 (or 110/111), PHYS130, PHYS131 and two additional electives approved by the undergraduate physics adviser. Students receiving credit for a scientific perspective course in physics prior to enrolling in PHYS120 may use it to replace one elective course. Requirements are flexible and the undergraduate physics adviser can replace any of the required core courses for students who are prepared for more advanced training.

Accelerated Degree Program

The department offers a M.A. degree in physics to undergraduate physics majors who complete a minimum of four core graduate courses from the following list: PHYS301, 302, 305, 306, 309 and 310 and who submit an acceptable thesis based on original research. It also is possible to combine the undergraduate physics major with accelerated M.A. programs in education and in environmental science and policy. Details are available from the department office.

Graduate Program

The department offers the master of arts and doctor of philosophy degrees in physics. Research is concentrated in experimental and theoretical studies of condensed matter, including organic superconductivity, molecular magnetic materials, granular matter, complex materials and nonlinear physics, biological physics, supercooled liquids and nucleation, and computer simulations. Other research areas include theoretical plasma physics, polymer science, nuclear physics and biomolecules.

Further information on the research interests of the faculty and research opportunities for graduate students can be found at the department's Web site, http://physics.clarku.edu.

Application forms for admission and financial aid may be requested from the chair of the department. During the academic year, financial support is available in the form of tuition remissions, teaching assistantships and research assistantships. The department considers the financial support of its graduate students an important responsibility.

Graduate Requirements

The academic requirements are flexible with emphasis on early student participation in research and informal student evaluation. A distinctive part of each student's course work is a research apprenticeship, PHYS303, which introduces students to different research groups beginning in the first year of graduate studies.

M.A. degree students must satisfy the general University residence and course requirements, pass four of the core graduate courses (PHYS301, 302, 305, 306, 309 and 310) and one semester of PHYS303 with a grade of B- or better, and pass two oral examinations in the subject matter of the core graduate courses. In contrast to M.A. physics programs at many other universities, M.A. candidates also must complete a thesis based on original research.

Ph.D. degree students must fulfill residence and course requirements, pass the core graduate courses (PHYS301, 302, 305, 306, 309 and 310) with a grade of B or higher, and complete three semesters of PHYS303. The department does not rely on a formal written qualifying examination to evaluate student readiness for the Ph.D. Instead, students must pass four oral examinations that stress qualitative as well as quantitative aspects of the subject matter of the core graduate courses. Students are required to pass an additional graduate course (approved by the graduate student adviser) in a subject that is outside the area of their dissertation concentration. The course may be in physics, the other sciences, mathematics, computer science or in another appropriate field. Ph.D. candidates also complete a dissertation based on original research. Students entering with advanced standing and transferable credit are encouraged to demonstrate proficiency in the core graduate courses through oral examinations.

Graduate students in both the M.A. and Ph.D. programs are required to gain supervised teaching experience either as teaching assistants or teaching fellows in the department, or elsewhere if approved by the department.

More information about the requirements for the Ph.D. and M.A. degrees in physics is available from the Graduate Student Handbook. Copies are available upon request from the graduate student adviser.

Courses

ASTR001 EXPLORING THE UNIVERSE/LECTURE, OBSERVATORY

Concepts and methods of science for non-science majors. Devoted to the planets, sun, stars, their life cycles and the galaxies. Involves physics, chemistry, biology and geology. Explores theories of the composition and origin of the solar system, the universe and life. Students observe celestial objects including the moon, sun, planets, meteors, stars, nebulae and galaxies using telescopes in the University observatory. Fulfills the scientific perspective. Mr. Blatt/Offered every fall

ASTR002 THE PLANETS AND SPACE EXPLORATION/LECTURE, OBSERVATORY

Covers much of the same material as ASTR001, but with more emphasis on the solar system and past and future projects for its exploration. Topics include the sun, comets and asteroids, planetary and satellite surfaces, and planetary interiors and atmospheres. The principles of rocket flight and the motion of objects in the solar system are treated qualitatively and with simple algebra. Observation sessions are an important part of the course (see ASTR001). Fulfills the scientific perspective. Mr. Blatt/Offered every spring

PHYS020 DISCOVERING PHYSICS/LECTURE, LABORATORY

This course emphasizes hands-on experience and the learning of science using approaches paralleling the ways scientists gain new knowledge. Open to all undergraduates, and especially appropriate for students interested in education. No special expertise in mathematics and science is assumed. Topics include wave and particle phenomena with an emphasis on the properties of light. Two laboratories and group discussions per week. Fulfills the scientific perspective. Mr. Blatt, Mr. Mukhopadhyay/Offered every year

PHYS110 INTRODUCTORY PHYSICS - PART I/ LECTURE, DISCUSSION, LABORATORY

Introductory level, concept-oriented survey course for science majors and other students. Stresses the simplicity and self-consistency of physical models in explaining a variety of physical phenomena. Topics include Newtonian mechanics and an introduction to the thermal properties of matter. Calculus is not required, but elements of algebra and trigonometry are reviewed and utilized. PHYS110, with PHYS111, fulfills the usual entrance requirements for medical and dental schools. Three lectures and one discussion section per week as well as one laboratory every other week. Fulfills the scientific perspective or formal-analysis requirement. Mr. Blatt, Mr. Kudrolli/Offered every fall

PHYS111 INTRODUCTORY PHYSICS - PART II/ LECTURE, DISCUSSION, LABORATORY

A continuation of PHYS110. Topics include wave motion, electricity, magnetism, optics, and a survey of modern physics. Students who do not intend to take a second year of physics should enroll in this course instead of PHYS121. Three lectures and one discussion session per week, as well as one laboratory every other week. The laboratory is designed to fulfill the usual entrance requirements for medical and dental schools. Fulfills the scientific perspective. Mr. Blatt, Mr. Kudrolli/Offered every spring

PHYS120 INTRODUCTORY PHYSICS - PART I/ LECTURE, DISCUSSION, LABORATORY

Problem-oriented course intended for science majors; coverage is more in-depth than PHYS110. Topics include Newtonian mechanics and wave motion. Course should be taken with MATH124 so the elements of calculus and its applications to physics can be treated at the same time. Three lectures and one discussion section per week, as well as one laboratory every other week. Corequisite: MATH120 or 124. Fulfills the scientific perspective or formal-analysis requirement. Mr. Agosta, Mr. Landee/Offered every fall

PHYS121 INTRODUCTORY PHYSICS - PART II/ LECTURE, DISCUSSION, LABORATORY

Continuation of PHYS120 offering a more in-depth introduction to physics than PHYS111. The topics of electricity, magnetism, light and optics are discussed. Recommended second semester course for physics, mathematics and other science majors who intend to continue with PHYS130. Three lectures and one discussion session per week as well as one laboratory every other week. Credit is not given for both PHYS111 and 121. Fulfills the scientific perspective. Corequisite: MATH121 or 125. Mr. Agosta, Mr. Landee/ Offered every spring

PHYS127 COMPUTER SIMULATION LABORATORY/ DISCUSSION, LABORATORY

Introduces methods of computer simulation and its diverse applications. The course is project oriented, with students proceeding at their own pace depending on their background and interests. Projects include planetary motion, chaotic systems, fractal phenomena, random systems and thermal systems. Methods include the numerical solution of differential equations and Monte Carlo techniques. The course emphasizes object-oriented programming, and is recommended for prospective science majors as an introduction to programming rather than CSCI101. Two laboratory sections and two discussion periods per week. Fulfills the scientific perspective. Prerequisites: PHYS120, MATH120 or 124, or instructor permission. No background in computer programming is required. Mr. Gould/Offered every spring

PHYS130 OSCILLATIONS, WAVES AND OPTICS/ SEMINAR, LABORATORY

The third of a four-semester introductory survey of physics. The seminar meets for three hours per week plus an afternoon laboratory. Oscillations and harmonic motion, wave phenomena such as interference, diffraction and standing waves, plus ray and wave optics are some of the topics covered. Key experiments include studies of mechanical, acoustic and optical waves, wave resonance in oscillating systems, construction of optical instruments, and the measurement of the speed of light. Prepares the student for the study of quantum waves in PHYS131. Fulfills the scientific perspective. Prerequisites: PHYS111 or 121; corequisite: MATH130. Mr. Kudrolli, Mr. Landee/Offered every fall

PHYS131 QUANTUM PHYSICS/SEMINAR, LABORATORY

The last in a four-semester survey of physics sequence; intended to follow PHYS130. After an introduction to relativity theory, the course emphasizes the experimental basis of atomic and nuclear structure leading to the development of wave mechanics. The laboratory uses modern research instrumentation to address contributions by Einstein, Rutherford, Compton, Moseley, Chadwick and others. Fulfills the scientific perspective. Prerequisite: PHYS130; corequisite MATH131. Mr. Blatt, Mr. Landee/Offered every spring

PHYS140 ENERGY AND THE ENVIRONMENT/ LECTURE, DISCUSSION

Discusses the central role of energy production, distribution and consumption in human activities, and the range of social, economic and political impacts that follow. Experiments and data analysis will be conducted using the University campus physical plant as an extended laboratory. Fulfills the scientific perspective. Mr. Agosta/Offered periodically

PHYS150 STATISTICAL AND THERMAL PHYSICS/ LECTURE, DISCUSSION

Introduces the concepts of thermodynamics and statistical mechanics with the goal of understanding the behavior of macroscopic systems on the basis of microscopic theory. Topics include probability, entropy and the second law of thermodynamics, the Boltzmann probability distribution, heat and work, and the first and second law efficiencies of simple engines. Prerequisite: PHYS130; corequisite: MATH131. Mr. Gould/Offered every fall

PHYS160 CLASSICAL MECHANICS/LECTURE, DISCUSSION

PHYS160 and 161 constitute an introduction to the concepts of classical physics at the intermediate level. Topics include particle and rigid body dynamics in inertial and noninertial reference frames. The necessary mathematical methods are introduced and applied. Prerequisites: MATH131 and PHYS111 or 121. Mr. Davies, Mr. Landee/Offered every fall

PHYS161 ELECTRICITY AND MAGNETISM/LECTURE, DISCUSSION

Continuation of PHYS160. Topics include electro- and magnetostatics and electrodynamics through Maxwell's equations and relativity. Develops useful mathematical methods. Prerequisite: PHYS160. Mr. Davies, Mr. Landee/Offered every spring

PHYS171 ATOMIC AND NUCLEAR PHYSICS/LECTURE, DISCUSSION

Intermediate-level course providing an introduction to quantum mechanics and its applications to atoms, nuclei, molecules and solids. Prerequisites: PHYS131 and MATH131. Mr. Agosta/Offered every year

PHYS201 CLASSICAL DYNAMICS/LECTURE, DISCUSSION

Designed to prepare students for graduate work in physics. Topics include Hamilton's principle, classical scattering theory, rigid body motion, canonical transformations, Hamilton-Jacobi theory and mathematical methods of physics. Lectures are the same as PHYS301, but the assignments and evaluation are separate. Prerequisite: PHYS160 and 161. Mr. Davies/Offered every fall

PHYS202 ELECTRODYNAMICS/LECTURE, DISCUSSION

Designed to prepare students for graduate work in physics. Topics include boundary value problems in electrostatics and magnetostatics, electromagnetic-field equations and special relativity, electromagnetic waves, radiation theory, multipole fields and mathematical methods of physics. Lectures are the same as PHYS302, but the assignments and evaluation are separate. Prerequisite: PHYS161. Mr. Davies/Offered every spring

PHYS205 QUANTUM MECHANICS - PART I/LECTURE

PHYS205 and 206 constitute a comprehensive introduction to the concepts of quantum mechanics and their application in physics and chemistry. Sequence prepares students for graduate work. Lectures are the same as in PHYS305, but the assignments and evaluation are separate. Prerequisites: PHYS171 and MATH131. Mr. Davies/Offered every fall

PHYS206 QUANTUM MECHANICS - PART II/LECTURE

PHYS206 is a continuation of PHYS205. Prerequisite: PHYS205. Mr. Davies/Offered every spring

PHYS209 STATISTICAL MECHANICS/LECTURE, DISCUSSION

Designed to prepare students for graduate work in physics. The lectures are the same as in PHYS309, but the assignments and evaluation are separate. Prerequisites: PHYS150 and 171. Mr. Gould/Offered every fall

PHYS219 ELECTRONICS LABORATORY/LECTURE, LABORATORY

Examines principles of modern electrical measurement and control. Introduces DC- and AC-circuit theory and use of test instruments such as multimeters and the oscilloscope. Emphasizes electronic circuit design, operational amplifiers and digital circuits. Two lectures and one laboratory each week. Suitable for intermediate-level undergraduates and graduate students in the sciences. Mr. Agosta/Offered every other fall

PHYS290 SENIOR SEMINAR/SEMINAR

This capstone covers a selection of topics of current interest in physics. Offered for variable credit. Staff/Offered periodically

PHYS299 DIRECTED STUDIES IN PHYSICS

Independent student work in physics with the guidance of a faculty adviser. With permission of the instructor, students may enroll for senior capstone or honors projects, directed readings in areas not covered in regular courses, or independent research in theoretical, experimental or applied physics. Offered for variable credit. PHYS299 may be taken more than once. Staff/Offered every semester.

PHYS301 CLASSICAL DYNAMICS

Graduate-level course in classical mechanics. Topics are similar to PHYS201, but are treated in greater depth. Mr. Davies/Offered every fall

PHYS302 CLASSICAL ELECTRODYNAMICS

Graduate-level course in classical electromagnetism. Topics are similar to PHYS202, but are treated in greater depth. Mr. Davies/Offered every spring

PHYS303 RESEARCH APPRENTICESHIP

Research apprentices participate actively in an experimental or theoretical research group. Ph.D. students enroll in the course for three semesters with a minimum of one semester in a theoretical group and one semester in an experimental group. M.A. students take a minimum of one semester. Staff/Offered every semester

PHYS305 QUANTUM MECHANICS - PART I/ LECTURE, DISCUSSION

PHYS305 and 306 offer a comprehensive introduction to quantum mechanics and its application in physics and chemistry. Topics include the foundations of quantum mechanics, symmetries and angular momentum, particle in a central potential, electron spin and perturbation theory. Mr. Davies/Offered every fall

PHYS306 QUANTUM MECHANICS - PART II/ LECTURE, DISCUSSION

PHYS306 is a continuation of PHYS305. Topics include scattering theory, interaction of radiation with matter, second quantization, applications to simple atoms and molecules and an introduction to many-body theory. Mr. Davies/Offered every spring

PHYS309 STATISTICAL MECHANICS/LECTURE, DISCUSSION

Examines statistical mechanics with applications to physical systems. Topics include ensemble theory, the statistical basis of thermodynamics, quantum statistics, the virial expansion of a classical gas, ideal Bose and Fermi systems, the renormalization group and fluctuations. Mr. Gould/Offered every fall

PHYS310 SOLID STATE PHYSICS/LECTURE, DISCUSSION

Examines experimental properties and the quantum theory of solids. Topics include crystal and reciprocal lattice structures, the free-electron theory of metals, electronic band structure and the Fermi surface, lattice vibrations and the elementary excitations of solids. Prerequisite: PHYS305 or permission of instructor. Mr. Landee, Mr. Mukhopadhyay/ Offered every spring

PHYS319 ADVANCED ELECTRONICS LABORATORY/LECTURE, LABORATORY

Similar to PHYS219, but more advanced. Topics are treated in greater depth. Suitable for graduate students in the sciences. Mr. Agosta/ Offered every fall

PHYS320 ADVANCED SEMINAR IN PHYSICS

Provides for special coverage of topics in physics of current research interest. Offered for variable credit. Staff/Offered periodically

PHYS325 RESEARCH SEMINAR

Student participation seminar on current research problems. Offered for variable credit. Staff/Offered periodically

PHYS327 ADVANCED COMPUTER SIMULATION LABORATORY

Similar to PHYS127 but more advanced. Suitable for graduate students in the sciences or undergraduates who have completed PHYS127. Prerequisite: PHYS127 or instructor permission. Mr. Gould/Offered every spring

PHYS390 COLLOQUIUM

Weekly invited lecturers speak on current research topics. Required for all graduate students and recommended for undergraduates involved in research. Not offered for credit. Staff/Offered every semester

PHYS397 RESEARCH

Thesis and dissertation preparation. Offered for variable credit. Staff/Offered every semester

PSYCHOLOGY

Program Faculty

Jaan Valsiner, Ph.D., *Chair*
Michael Addis, Ph.D.
Michael Bamberg, Ph.D.
Roger Bibace, Ph.D.
Nancy Budwig, Ph.D.
Esteban Cardemil, Ph.D.
James Cordova, Ph.D.
Joseph de Rivera, Ph.D.
Rachel Falmagne, Ph.D.
Wendy S. Grolnick, Ph.D.
James Laird, Ph.D.
Elaine Reese, Ph.D.
David Stevens, Ph.D.
Nicholas Thompson, Ph.D.
Penelope Vinden, Ph.D.
Marianne Wiser, Ph.D.

Affiliate Assistant Professor

Eydie Kasendorf, Ph.D.

Adjunct Faculty

Sharon Griffin, Ph.D.
Linda Kennedy, Ph.D.

Part-time Faculty

Robert A. Ciottone, Ph.D.
Michael Cirillo, Ph.D.
Cathleen Crider, Ph.D.
Marlene Oscar-Berman, Ph.D.

Research Associates

Barbara Dowds, Ph.D.

Program Overview

The department provides educational experiences that both contribute to liberal-arts education and prepare students for graduate work in psychology or related disciplines. The program emphasizes the role of psychological scholarship in understanding human behavior and experience. The program culminates in small and intensive capstone courses that offer students an opportunity to participate fully in the theoretical and research life of the department.

Frances L. Hiatt School of Psychology

The Frances L. Hiatt School of Psychology, formed in 1987, has a major endowment provided through the generous support of the Hiatt family. The school, which encompasses the Department of Psychology with the Heinz Werner Institute for Developmental Analysis and the Department of Education, provides, in addition to Frances L. Hiatt Graduate Fellowships, opportunities for organizing and attending conferences and support for travel and research activities for the school's faculty and students.

The Heinz Werner Institute for Developmental Analysis

Associated with the department is the Heinz Werner Institute for Developmental Analysis, which has three aims: to integrate various research programs dealing with developmental problems; to attract scholars, teachers and research workers from disciplines for which developmental problems are pertinent, such as anthropology, biology and certain areas of medicine; and to train research workers on postdoctoral levels in the comparative-developmental approach to behavior.

Major Requirements

The six introductory courses provide a foundation in the content and method of psychology and should normally be completed by the end of the sophomore year. The introductory courses include PSYC101 General Psychology, two methods courses, PSYC105 Quantitative Methods and PSYC107 Approaches to Psychological Research, and at least one course from EACH of three broad content areas of psychology. These are:

Basic Processes (BP):

Courses in evolutionary psychology, physiological psychology, learning, sensation and perception, and cognition. Choose from:

BIOL140 Biology of the Brain
BIOL141 Brain and Behavior
PSYC120 Human Cognition
PSYC130 Psychology of Learning

PSYC135 Paradox of Animal Sociality
PSYC136 Animal Instinct, Animal Mind
PSYC142 Sensation and Perception
PSYC145 Psychophysiology

Development (DEV):

Courses in historical, cultural and human developmental psychology. Choose from:

PSYC150 Developmental Psychology
PSYC156 Cultural Psychology
PSYC157 Cultural Psychology of Urban Living
PSYC158 Discourse, Subjectivity and Self

Social/Personality (S/P):

Courses in social, clinical, personality and abnormal psychology. Choose from:

PSTD176 Introduction to Peace Studies and the Psychology of Peace
PSYC170 Social Psychology
PSYC172 Psychology of Personality
PSYC173 Introduction to Abnormal Psychology
PSYC175 Introduction to Clinical Psychology

Declaring a Psychology Major and Related Field

A student nearing the end of his or her sequence of introductory courses should come to the department office to declare a major and be assigned a psychology adviser. This formality will normally occur by the spring of a student's sophomore year. When declaring a major, a student must also choose a related field. The related field requirement reflects the conviction of the faculty that all academic areas are usefully related to psychology and that understanding the relation between psychology and another discipline requires knowing that other discipline in considerable depth. A related field is generally a recognized six-course concentration or minor. Alternatively, a student may adopt as a related field any pattern of six courses that his or her psychology adviser has approved as providing depth of knowledge in a discipline related to psychology.

Mid-level Courses

In addition to the above six introductory courses, majors must take two mid-level courses that provide experience with the two fundamental activities of academic psychology, the analysis and interpretation of psychological literatures and the conduct of psychological investigations. Students complete at least one each of the following types of mid-level courses by the end of the junior year.

First Seminars focus on the attentive analysis of psychological texts, the articulation of opinions concerning psychological issues, and the use of library and reference skills in psychological writing. (Permission to take a capstone seminar as a first seminar will not ordinarily be given and must, in any case, be obtained in writing in advance from the faculty member involved.) Choose one from numbers PSYC240-259.

Laboratories focus on doing psychological research including planning, data collection, analysis, interpretation and presentation. (Choose from numbers PSYC200-214.) The laboratory requirement may be fulfilled by taking a research course.

Research courses are opportunities to participate in faculty and/or graduate student research projects, in all stages of the research process from conceptualization to presentation. The work normally terminates in an Academic Spree Day presentation and/or co-authorship of a scholarly paper or conference presentation. Students desiring to join a research course should make arrangements with a faculty sponsor well in advance. In approaching faculty members to make these arrangements, students should bear in mind that research courses are taken on as an addition to a faculty member's normal teaching load and space is limited. Choose from numbers PSYC215-235. In rare instances, this requirement may be met by research experience done for credit in another department. In such cases, PSYC101, 105 and 107 must have been completed, and the proposed project approved before course registration and after course completion.

Capstone Courses

Capstone courses provide an opportunity for students to participate more intensively in the analysis of a psychological literature or the pursuit of empirical research in psychology. Thus, the capstone requirement may be fulfilled by taking one of two kinds of courses.

Capstone seminars are open to undergraduates and are taught at or near the graduate level. Choose from numbers PSYC260-299.

Capstone Research. Students fulfilling the capstone requirement with a research course should notify the faculty member when they seek permission for the course. Capstone research students should expect to write a substantial research report describing the theory, methods, statistical method, results and conclusions of the project they conducted.

Honors Program

Honors work in psychology is available to seniors who have demonstrated high scholastic achievement and the ability to work independently in scholarly situations. Students petition the department faculty for admission to the honors program with the support of a faculty sponsor and a description of a proposed research project. This research provides a basis for a thesis that, upon completion, is presented and defended by the student before an examining committee of faculty. Level of honors is determined by the full department on the basis of recommendations from its examining committees. Students interested in departmental honors in psychology should make arrangements with a faculty sponsor during the second semester of their junior year or earlier, enroll in PSYC297 for the two semesters of their senior year, and be formally admitted to the program no later than the beginning of their senior year.

Graduate Program

The Master of Arts

The M.A. degree is not required for completion of the doctoral degree. All students complete an independent research project by the end of their second year and present the results at a departmental conference. Students may choose to write up their research in the form of a master's thesis and submit it to the graduate school in order to receive an M.A. degree.

Graduate Training in Clinical Psychology

The basic philosophy in the training of clinical psychology students, as for all graduate students in the department, is that specialization, necessary as it is, is a process of individualization and emphasis rather than one of restriction, isolation and compartmentalization. Our aim is to provide an integrated series of intensive educational experiences in class, laboratory and practicum clinical settings (in the University and in other agencies) in which specialist training in clinical psychology is attained along with increasing competence in general psychology, theory and research. It is our hope that these aims and training procedures will equip our graduates to deal with special problems in clinical psychology from the vantage point of knowledge about contents and methods of other areas of psychology. It is assumed that this perspective will develop inquiry-oriented psychologists with creative-integrative approaches to clinical problems and their relationship to psychological knowledge. We believe that such broadly trained psychologists can be flexible enough to meet the varied demands within the different settings in which the clinical psychologist currently functions and innovate conceptual approaches and methods of clinical psychology. The clinical-training program includes course work and practice with adults and children. In addition to more traditional training, the program offers opportunities in child clinical and marital-and-family intervention.

The program for the Ph.D. in clinical psychology has, in addition to the general requirements, the following special requirements. Each student must take at least one course from each of three areas:

1. Biological aspects of behavior (e.g., physiological psychology, behavior and evolution, human neuropsychology)

2. Cognitive-affective aspects of behavior (e.g., symbolism, cognitive development, logical reasoning, action and emotion)
3. Social aspects of behavior (e.g., interpersonal relations, social cognition).

Each student must take PSYC311 Psychopathology, PSYC310 Theories of Psychotherapies, and PSYC393 Historical Backgrounds of Contemporary Psychology. Each student must complete a minimum of one year of internship in clinical settings. All clinical students participate for four years in practicum training offered at the University or other agencies. For further information contact the director of clinical training. The clinical-psychology program is currently accredited by the American Psychological Association (APA). For more information, the APA Committee on Accreditation can be contacted at 750 First Avenue, N.E., Washington , D.C. 20002-4242, (202) 336-5500, (202) 336-6123 TDD.

Graduate Study in Developmental Psychology

The developmental psychology curriculum is intended to prepare students for a career in research, teaching and scholarly activity. It strives to impart both theoretical sophistication and competence in observational, experimental, interpretative and comparative inquiry with regard to developmental issues. Emphasized are ways of representing and examining all life phenomena, rather than focusing exclusively on a particular population (e.g., infants, children, adults) or a specific subject matter. In-depth study is offered with particular populations and in specific areas bridging social, cognitive and language development. Students with a concentration in developmental psychology are required to enroll for two semesters in PSYC300 Developmental Psychology Forum and take a series of six graduate developmental seminars. These eight courses satisfy, at the same time, the content courses requirement of the graduate program. Since there are no sharp separations between different areas within the department, students who work primarily in developmental psychology have the opportunity to study with other faculty in the department who have an interest in their area of specialization.

Distinctive features of the program include a strong interest in theoretical perspectives, a concern with the relationship between problems and methods of inquiry, and an attempt to place questions in their historical and cross-disciplinary contexts. Faculty interests intersect around topics in the development of psychological processes in societal and cultural context, specifically in the development of conceptualization and reasoning, in the study of social relations and interpersonal interactions, development of languages, symbolization and communication, and study of the relation of environmental conditions to functioning.

Research facilities in the department include a child-study area. There are opportunities for research in the schools and in other community settings. The Goddard Library has an extensive collection of books and journals going back to the inception of graduate study in psychology in the United States. Computer facilities are available on campus and in the department. For additional information about study in developmental psychology, write to Dr. Marianne Wiser(mwiser@clarku.edu).

Graduate Study in Social-Evolutionary-Cultural Psychology

This program integrates the perspectives of social, evolutionary and cultural psychology, and focuses on both emotional processes, and societal peace and conflict. Its social psychological perspective examines human interactions by focusing on personal experiences of self, our feelings, and the choices we make. It includes the study of group dynamics and intergroup relations. The biological-evolutionary perspective examines those same human interactions against the background of their evolutionary history, looking for enduring themes that persist in contemporary human social behavior. The cultural psychological perspective examines the manner in which language, culture, and social and political ideology interact with our basic natures to influence human experience and behavior. The program is ideal for graduate students who are committed to tailoring a program of study in emotional processes, peace and conflict, evolutionary or health psychology. Its flexibility (there are only three required courses) enables students to build a program that takes advantage of faculty with varied perspectives (behaviorist, cultural, evolutionary, phenomenological, psychodynamic) who respect one another and collaborate on research. This flexibility is manifested in networks of collaboration that link professors and graduate students by particular scholarly interests. Please see our Web site for more details.

For further information, contact Dr. Joseph de Rivera at jderivera@clarku.edu.

Graduate Study in Other Areas

Other current interests of the faculty include feminist cognition, cognition and instruction, and the psychophysics of taste and smell. Teaching and research emphasize theoretical relevance and preserving and exploring the connections among areas of specialization. Faculty and students typically maintain extensive and regular interactions. In particular, most of the faculty have close connections with all the programs. The department also has education research ties with a number of institutions in the Worcester-Boston area (e.g., the Neuropsychology Unit of the Boston Veterans Administration Hospital, the Worcester Foundation for Experimental Biology, the University of Massachusetts Medical School), as well as other departments at Clark. For further information, write to the chair of the department. (jvalsiner@clarku.edu)

Doctoral Program

General Requirements

Only those students who plan to enroll in the Ph.D. program on a full-time basis are admitted for graduate work. The aim of the program is to provide students with a general integrated background covering the various areas of psychology. Specialization in several areas of study is available. Although a small department cannot reflect the entire spectrum of perspectives toward the study of psychology, a considerable number of theoretical orientations are demonstrated by the faculty. Important emphasis is placed on theoretically grounded inquiry and conceptually and methodologically rigorous research. In all programs, including the clinical program, there is a deep concern with conceptual analysis and theoretically grounded and directed inquiry. Unique is the diversity of methods of investigation used by faculty and graduate students in their work and the range of problems taken to fall within the purview of psychologists. Students are acquainted not only with traditional experimental and naturalistic methods, but also with phenomenological, structural, hermeneutic and other methodologies. Participation in research is strongly encouraged, the nature of which is determined by interests a student shares with faculty members. Students are expected to contribute significantly to problem formulation, conceptualization, methodology, analysis and write-up of research work.

Advisers

A faculty adviser will be assigned to help each student plan a curriculum to best meet individual needs and goals. The adviser may change or waive any of the requirements of specific training programs with department approval, but ordinarily the adviser's function is to assist students in selecting a curriculum from within the normal requirements. In addition to course selection, the adviser will work with the student to develop a portfolio of scholarly and professional accomplishments.

Course work

Students ordinarily are expected to take four courses in each semester for their first two years, including PSYC301 Problem, Theory and Method in Psychology and PSYC302 Statistical Methods in their first year. In subsequent years, students continue to enroll in a full program, which ordinarily includes three or four content courses and research and reading courses. A total of at least 16 one-semester content courses is required for admission to candidacy for the Ph.D. There are special course distribution requirements in effect for clinical students, and clinical applicants should consult the section on Training in Clinical Psychology for information about course requirements. Content courses include: all graduate seminars; clinical methods courses; Statistical Methods; Problem, Theory, Method; and courses numbered 300-379 and 390-399 (Topics are similar to capstone seminars but are treated in greater depth). Up to four directed-reading courses may be taken as content courses after the second year and with the supervising faculty member's approval.

Research in the First Year

To encourage each student to become actively involved in research from the beginning of graduate training, a research apprenticeship program exists through which faculty and students can voluntarily begin working on research together during the first year. Participating faculty provide a brief description of current research projects in which students can become involved or notify students about when their project meetings are held. During the first two weeks of each year students have the opportunity to consider these projects and contact a faculty member to discuss becoming an apprentice in the described research project.

Qualifying Projects

In order to advance to candidacy for the doctoral degree, students must complete six elements of a qualifying portfolio by the end of their third year in the program. Students are expected to complete two elements per year to stay on track towards completion of the portfolio. Elements may be papers written under the supervision of a faculty member, manuscripts submitted for publication, conference presentations or grant proposals. Students are expected to form a portfolio committee of three faculty members by the end of their first semester, with the primary research adviser serving as chair. The committee oversees and approves elements of the portfolio. The student is responsible for maintaining steady progress of the portfolio and for meeting stated deadlines. Written feedback regarding progress on the portfolio will be provided bidirectionally each year by the student and the primary research adviser.

Examination in Statistical Methods

Students are required to demonstrate competence in statistical methods by satisfactory performance on an examination in that area. The examination is normally taken in two parts during the student's first year, at the completion of each semester of the course in PSYC302 Statistical Methods.

Ph.D. Dissertation Proposal Defense

Once in final form, the dissertation proposal will be presented and defended by the candidate in a meeting with the three faculty on the dissertation committee. This defense, which is based on questions and discussions (no presentation of the proposal) is intended to demonstrate the candidate's command of the relevant base and of the rationale of the proposed study, and the candidate is expected to be able to substantiate theoretical and procedural aspects of the research. It is expected that the proposal presented will be satisfactory in substance in most cases, since it will normally be developed in consultation with members of the candidate's dissertation committee.

Ph.D. Dissertation

Students demonstrate the ability to conduct research by the presentation of an acceptable dissertation. The topic of the dissertation usually is selected by the student working with one or more members of the faculty. Once students have worked out a general research plan, a dissertation committee is formed to supervise and assist in all phases of the research effort, from articulation of the research design to the write-up of the final draft. After completion of the research, students submit a draft of the dissertation to the committee, which will aid students in making necessary revisions. At the point that the committee decides that the dissertation is complete and ready for presentation, the oral examination is scheduled.

Ph.D. Oral Examination

Following submission of the dissertation, a final two-hour oral examination is held in which students present and defend their dissertation. The dissertation will be presented publicly to the psychology faculty and graduate students (and guests where appropriate) and open to questions from the faculty. The format is similar to that of a professional presentation (job talk or colloquium). The candidate is expected to demonstrate his/her ability to address questions on the theoretical frame, the substantive questions, and the findings of his/her work and on related matters, both from experts in their immediate area and from broadly informed members of the audience. The dissertation oral will include the committee and an additional two or three faculty members appointed by the department chair. The selected readers must be specialists in the field (at the level of Ph.D. or its equivalents), including affiliated, adjunct faculty, visiting and postdoctoral scholars, aside from full-time faculty. In case of expertise needed, committee members may be invited from other universities to participate in the final oral examination. Optimally, all faculty with generally related interest and knowledge will attend. The oral will be chaired by the department chair or designee. The Ph.D. must be completed in six years (excluding an internship year or official leave). An additional year may be granted by faculty approval of a petition on other grounds, such as part-time study because of financial necessity.

Postdoctoral Opportunities

The Psychology Department is in the process of establishing a postdoctoral program in all areas where it currently offers doctoral degrees. International postdoctoral visitors have been the core of the present program, and federally funded postdoctoral positions for U.S. citizens are expected to be established in the near future.

Courses

PSYC101 GENERAL PSYCHOLOGY/LECTURE, DISCUSSION

Introduction to the principles of human behavior. No prerequisite. Unless otherwise noted, this course is a prerequisite to all other psychology offerings. Discussion attendance required. Mr. Addis/Offered every semester

PSYC105 QUANTITATIVE METHODS/LECTURE

Introduction to descriptive and inferential statistics for the social sciences. Prerequisite: PSYC101. Ms. Vinden, Mr. Laird/Offered every semester

PSYC107 APPROACHES TO PSYCHOLOGICAL RESEARCH/LECTURE, DISCUSSION

Focuses on the role of research in psychological thought and theoretical development, research methods, and the principles of experimental design. Covers the range of methods used by psychologists, including qualitative analyses (participant observation and discourse analysis) as well as the traditional experimental methods. This course is a prerequisite for all laboratory or research courses. Prerequisite: PSYC105. Mr. Bamberg, Mr. Stevens/Offered every semester

PSYC120 INTRODUCTION TO COGNITION/ LECTURE, DISCUSSION

Provides an overview of some of the cognitive functions that comprise our mental life as we function in the world, such as thinking, concepts, memory, attention, language, problem solving and decision making. The course examines the mental processes that underlie these functions and emphasizes how those aspects of thought are interconnected. The assumptions underlying the perspective of cognitive psychology are discussed and the extensions and contributions of that approach to sociocultural, clinical and developmental questions are explored. Ms. Joffe Falmagne/ Offered every year

PSYC130 PSYCHOLOGY OF LEARNING/LECTURE
Focuses on historical and current issues in the psychology of learning. Topics include classical and operant learning, the role of language and cognition, and continuity and discontinuity in human and nonhuman species. Mr. Addis/ Offered periodically

PSYC135 THE PARADOX OF ANIMAL SOCIALITY/ LECTURE, DISCUSSION
Examines Darwinian theory as it applies to animal-social organizations. The course redefines such concepts as natural selection, adaptation, communication, personality, emotions, grouping and territoriality as they apply to animal behavior. This course is run with much class discussion and emphasis on questioning theories, constructing new models and arriving at new, clearer definitions. Prerequisite: Introductory biology or psychology normally required, but open to freshmen with special qualifications; see instructor. Mr. Thompson/ Offered every year

PSYC136 HUMAN INSTINCT, ANIMAL MIND/ LECTURE, DISCUSSION
Explores the relation between animal and human psychology, first by looking at humans as animals, then exploring human-like qualities, such as mind or emotions, as they occur in animals. Offered only on a credit no record basis. Mr. Thompson/Offered every year

PSYC142 SENSATION AND PERCEPTION/LECTURE
Sensation, perception and cognition work together to give us meaningful information about the world. This course examines how information is picked up from the environment and then coded, transformed and integrated by the sensory systems with special emphasis on vision. Topics include basic visual and auditory functions, vision abnormalities and deafness, taste, touch and pain, and how babies perceive the world. Ms. Wiser/Offered every year

PSYC145 PSYCHOPHYSIOLOGY/LECTURE
Deals with how the activities of the body outside of the central nervous system interact with, reflect or produce psychological states and processes. Topics will include the functioning of the autonomic nervous system; techniques for measuring autonomic and other bodily activities; the role of bodily activities in emotions and other feelings; lie detection; the impact of stress on autonomic functioning and on immune system function; the effects of meditation, exercise and biofeedback on physiology and experience. Mr. Laird/Offered every year

PSYC150 DEVELOPMENTAL PSYCHOLOGY/ LECTURE
Discusses the development of biological, cognitive and social functioning from conception to adolescence. Emphasizes and contrasts theoretical approaches to conceptualizing changes in developing children in light of current research. Ms. Budwig, Ms. Reese/Offered every year

PSYC156 CULTURAL PSYCHOLOGY/LECTURE, DISCUSSION
Provides a systematic overview of knowledge about cultural organization of human psychological functions, and how psychology as a research discipline can study these functions. Strong theoretical and methodological orientation is included. Mr. Valsiner/Offered every year

PSYC157 CULTURAL PSYCHOLOGY OF URBAN LIVING/ LECTURE, DISCUSSION
The focus is to provide the students with skills of observational research in culturally structured open spaces (urban settings). Research tasks will be set up for the students in different cultural contexts in the local environment. The students will carry out an observational and a naturalistic-experimental study and write a research report. Fulfills the comparative perspective. Mr. Valsiner and Staff/Offered periodically

PSYC158 DISCOURSE, SUBJECTIVITY AND SELF/ LECTURE, DISCUSSION

Provides a multiple perspective approach to subjectivity and the self: biological, cognitive-experimentalist, experiential, social constructionist and psychodynamic. Examines the role of discourse in how the self is constructed with special emphasis on developmental aspects. Mr. Bamberg/Offered periodically

PSYC170 SOCIAL PSYCHOLOGY/LECTURE, DISCUSSION

Examines love, fear, conflict and other basic processes involved in group dynamics, interpersonal relations, community psychology, intergroup relations, organizational behavior and the interface between human nature and culture. These basic processes are related to the attempt to achieve a world of peace and justice. In addition to quizzes and a final exam, students are asked to apply their knowledge of basic processes in a personal or political action. Prerequisite: PSYC101 or instructor's permission. Mr. de Rivera/Offered every year

PSYC172 PSYCHOLOGY OF PERSONALITY/ LECTURE

Considers theories regarding behavioral differences among persons in response to the same or similar situations: includes typological, trait, psychoanalytic, traditional and neobehavioristic, and personological conceptions. Mr. Cordova/Offered every year

PSYC173 INTRODUCTION TO ABNORMAL PSYCHOLOGY/LECTURE

Discusses the manner in which abnormal behavior has been traditionally defined and the implications of these definitions. Provides a comprehensive overview of the major categories of abnormal behavioral disorders with an emphasis on theory and research (e.g., schizophrenia, affective disorders, substance abuse, eating disorders, etc.). Special attention is paid to issues of assessment, intervention, legal issues and prevention. Ms. Grolnick, Mr. Cardemil/Offered every year

PSYC175 INTRODUCTION TO CLINICAL PSYCHOLOGY/LECTURE, DISCUSSION

Surveys various approaches to clinical assessment and intervention. Emphasizes the assumptions underlying alternative approaches and the actual activities of clinical psychologists. This course also covers special topics including ethics, health psychology, clinical neuropsychology and forensic psychology. Mr. Addis/Offered periodically

PSYC193 DISCOURSE, SELF AND GENDER/FIRST-YEAR SEMINAR

This seminar attempts to explore through the lens of discourse how people make sense of themselves as "gendered beings," with a focus on the construction of "masculinity." Since this course carries the language and culture perspective, it is expected that students will acquire the basic grammatical and syntactic categories necessary for in-depth analyses of language in use. Students will be expected to commit themselves to a high-level academic atmosphere and to a challenging workload that will result in stimulating class discussions. Fulfills the language and culture perspective. Mr. Bamberg/Offered periodically

PSYC195 PURSUIT OF AN INQUIRY/FIRST-YEAR SEMINAR

Designed primarily for incoming students, this course provides an opportunity to pursue independent scholarship in chosen fields. Students must write a substantial term paper by the end of the semester. Class meetings are used to clarify the exposition of ideas and to train the participants in how to exploit the resources of the community for independent scholarship. Papers may be written on any topic. PSYC101 is not a prerequisite. Instructor's permission. Staff/Offered periodically

PSYC196 PSYCHOLOGY THROUGH HISTORY/ FIRST-YEAR SEMINAR

This seminar for first-year undergraduates will help students get a head start for a future in psychology from an interdisciplinary focus. This course entails the investigation and discussion of great literary and philosophical works that have a profound influence on today's academic psychology. Students will learn the contextual relevance that surrounds the past and present. Students will also learn to efficiently and rigorously investigate and report on texts significant to psychology. Staff/Offered in the fall

PSYC201 LABORATORY IN SOCIAL PSYCHOLOGY/ LABORATORY, DISCUSSION

General principles of experimental design are learned through the design and performance of original experiments in experimental social psychology. Both group and individual experiments are conducted in any of the usual topic areas of social psychology. Prerequisites: PSYC105, 107, 170. Staff/Offered periodically

PSYC202 LABORATORY IN DEVELOPMENTAL PSYCHOLOGY/LABORATORY, DISCUSSION

A general introduction to conceptual issues related to research in the area of human development. Students participate in group research projects involving observational and experimental techniques and receive training in all phases of research, including formulating research questions, data collection and analysis, and report writing. Prerequisites: PSYC105, 107 and 150. Ms. Budwig, Ms. Reese/Offered every year

PSYC203 LABORATORY IN THINKING PROCESSES/ LABORATORY, DISCUSSION

Introduces students to the how-to of doing research on reasoning, using both experimental and qualitative interview-based methods. Students conduct studies on such questions as: What role do prior knowledge, prior beliefs and logic play in reasoning? How do people reason about the causes of everyday events? How do people draw conclusions from given information? There will be flexibility for students to engage more deeply in content areas of particular interest to them. Prerequisites: PSYC105, 107 and 120. (PSYC120 can be taken the same semester as the lab.) Ms. Falmagne/Offered periodically

PSYC204 LABORATORY IN EMOTION AND MOTIVATION/LABORATORY, DISCUSSION

A study is designed to examine how individual or collective emotions influence behavior. Data are gathered, analyzed and reported. Prerequisites: PSYC105, 107 and instructor's permission. Mr. de Rivera/Offered every other year

PSYC205 LABORATORY IN TASTE AND SMELL/ LABORATORY, DISCUSSION

Discusses concepts of experimental design and method. Experiments are conducted on the scaling of taste, smell and flavor, such as the comparison of the sweetness and pleasantness of different sugars. Prerequisites: PSYC105, 107 and instructor's permission. Mr. Stevens/ Offered periodically

PSYC206 LABORATORY IN PERSONALITY/ LABORATORY, DISCUSSION

Examines issues and problems in psychological research in personality, with the problems being exemplified in class and in individual studies. Research may be in conventional areas of personality research, such as perceptual defense, motives and performance, self-perception, experimenter influence, and emotions. Prerequisites: PSYC105, 107, 172. Staff/ Offered every year

PSYC211 LABORATORY IN COMMUNITY PSYCHOLOGY/LABORATORY, DISCUSSION

Concerned with the prevention of mental-health problems and enhancement of individual functioning through the strengthening and empowerment of communities. Weekly lectures introduce essential principles and methods. In weekly laboratory settings, students design, conduct and evaluate their own community research projects. Designed for students already actively engaged in neighborhood or community-based initiatives. Prerequisites: PSYC105, 107, 172 and instructor's permission. Staff/ Offered periodically

PSYC212 LABORATORY IN GENERAL PSYCHOLOGY/LABORATORY, DISCUSSION

Students develop skills investigating various aspects of human behavior and experience. Prerequisites: PSYC105, 107. Staff/Offered periodically

PSYC213 Laboratory in Family Processes/ Laboratory, Discussion

Examines family-based correlates of early socioemotional development. Both self-report and observational methodology are used to assess individual, dyadic and whole family functioning. Topics vary, but may include studies of dyadic and family play, intimate relationships among married couples, family-based correlates of children's school adjustment and other topics. Prerequisites: PSYC105, 107, 172 and instructor's permission. Staff/Offered periodically

PSYC214 Laboratory in Interviewing/ Laboratory, Discussion

Enables students to use interviews as a research tool productively and responsibly, with emphasis on structured, focus-group and unstructured (qualitative) interviews. The different approaches and techniques will be explored theoretically and with practical exercises. A valuable research prerequisite for doing honors work in the social sciences. Prerequisite: PSYC107 or instructor's permission. Mr. Bamberg/Offered periodically

PSYC215 Research in Emotion/Laboratory, Discussion

Working in close collaboration with the instructor, students design, conduct and present a piece of research that investigates an emotional or motivational phenomenon. Instructor's permission. Mr. de Rivera/Offered periodically

PSYC216 Research in Health Psychology/ Laboratory, Discussion

Research in the area of health psychology addresses any issues related to health and disease in individuals and groups; analyses of doctor/patient relationships and particular diseases (acute and chronic) of interest to a student. Faculty members in the area of health psychology are also associated with the Department of Family Medicine and Community Health at UMass Medical School and the Department of Obstetrics and Gynecology at the New England Medical Center in Boston. Instructor's permission. Mr. Bibace/Offered periodically

PSYC217 Research in the Development of Memory and Literacy/Laboratory, Discussion

Students participate in ongoing research projects on the development of autobiographical memory and literacy, particularly as these skills develop in social interaction with others. Prerequisites: PSYC150 and instructor's permission. Ms. Reese/Offered periodically

PSYC218 Research in Family Dynamics/ Laboratory, Discussion

Students participate in the design, conduct and interpretation of experiments in an ongoing research program in family dynamics and child development. Instructor's permission. Staff/Offered every year

PSYC219 Research on Mind in Context/ Laboratory, Discussion

Explores the relationship between children's developing understanding of mind, parenting style and mother-child interactions. Students join the professor in an ongoing research project. Prerequisite: PSYC107 and instructor's permission. Ms. Vinden/Offered every year

PSYC220 Research in Chemoreception/ Laboratory, Discussion

With the instructor, students design, conduct and interpret research in taste, smell and flavor. Instructor's permission. Mr. Stevens/ Offered every year

PSYC221 Research in Social Psychology/ Laboratory, Discussion

Students participate in the design, execution, analysis and interpretation of research on self-awareness and self-knowledge, including areas of emotions, attitudes and abilities. Prerequisites: PSYC105, 107, 170, and instructor's permission. Mr. Laird/Offered every year

PSYC222 Research in Cognitive Development/Laboratory, Discussion

Students participate in an ongoing research project in collaboration with the instructor and graduate students. Students participate in designing and conducting studies in schools and day-care centers, analyzing data and presenting findings. Recent topics include the development of early literacy, the understanding of maps and models in young children, children's ideas about the physical world, and children's understanding of diseases. Prerequisites: PSYC105, 107, 150 or instructor's permission. Ms. Wiser/Offered periodically

PSYC223 RESEARCH IN MOTIVATIONAL AND EMOTIONAL DEVELOPMENT IN INFANTS, CHILDREN AND ADOLESCENTS/LABORATORY, DISCUSSION

Ongoing research on the effects of contexts (home, school, etc) on the emotional and motivational development of children. Instructor's permission. Ms. Grolnick/Offered every semester.

PSYC224 RESEARCH ON IDENTITY DEVELOPMENT/LABORATORY, DISCUSSION

Designed to train students in an ongoing research project on the development of subjectivity and identity in and through discourse, particularly narrative discourse. Instructor's permission required. Mr. Bamberg/Offered periodically

PSYC225 RESEARCH IN FAMILY AND CHILD/ LABORATORY, DISCUSSION

Students participate in ongoing research projects that examine causes of aggression, gender differences, or family issues either with children, adolescents or parent-child dyads. The research takes place within a cognitive behavioral framework. Instructor's permission. Staff/ Offered every year

PSYC226 RESEARCH IN BIOACOUSTICS/ LABORATORY, DISCUSSION

The research analyzes animal and human infant sounds to describe their form and discover their significance. Meets weekly to plan and carry out research projects. Limited enrollment. Instructor's permission and a period of volunteer apprenticeship normally required. Mr. Thompson/Offered every year

PSYC227 RESEARCH IN PSYCHOTHERAPY/ LABORATORY, DISCUSSION

Studies the process of change in various forms of psychotherapy. Students can participate in the formulation of a question and systematic evaluation of hypotheses pertaining to specific client-therapist interactions. Instructor's permission required. Mr. Addis/Offered periodically

PSYC229 RESEARCH IN THE DEVELOPMENT OF LANGUAGE AND LANGUAGE SOCIALIZATION/ LABORATORY, DISCUSSION

Students participate in an ongoing project concerning language development and language socialization. Students are responsible for various phases of research, including preparing literature surveys, analyzing data and interpreting results. Towards the end of the semester, students prepare a written paper describing their work. Instructor's permission. Ms. Budwig/ Offered every semester

PSYC230 RESEARCH IN CULTURAL PSYCHOLOGY/ LABORATORY, DISCUSSION

Provides students with an overview of the empirical research practices in different branches of cultural psychology and with practical skills in designing and carrying out one's own (or group) project. The projects are expected to continue over the following semesters. Instructor's permission required (and granted for continuing projects). Mr. Valsiner/ Offered every semester

PSYC231 COUPLES RESEARCH/LABORATORY, DISCUSSION

This course involves undergraduate majors in all phases of ongoing research being conducted in the Couples Research Laboratory of Professor James Cordova. Students will participate in weekly lab meetings. Depending on the phase that studies being conducted in the lab, students can be involved in project design, recruiting participants, interviewing participants, observing couples' interactions and coding their behavior, gathering data, managing data and library research. Instructor's permission. Mr. Cordova/Offered periodically

PSYC232 RESEARCH IN COMMUNITY/ LABORATORY, DISCUSSION

This course provides a hands-on experience with conducting community/clinical psychology research in the area of childhood depression. Students will be actively involved in a grant-funded research project in which we will examine the relationships among race, ethnicity and depression in 5th- and 6th-grade children in the Worcester school district. In order to maximize the experience on this project, students will participate in a weekly class in which the theoretical underpinnings of the project are discussed. Students will also be required to write a final paper and present a poster at Academic Spree Day. Instructor's permission. Mr. Cardemil/Offered every semester.

PSYC233 RESEARCH ON THINKING IN SOCIETAL CONTEXT

Students participate in ongoing interview research on the different knowledges and other resources people bring into their reasoning about complex situations, and on the manner in which people's subjectivity and their modes of thinking are shaped by their societal context and cultural history, with particular attention to gender. Students receive training in interview practices and qualitative data analysis, and conduct hands-on specific analyses of interest to them and pertaining to this research project. Weekly lab meetings, including undergraduate students, graduate students involved in the research and the instructor, are devoted to discussing the theoretical background of the research, its methodology and the students' ongoing analyses. Instructor's permission. Ms. Falmagne/Offered periodically

PSYC240 MEMORY DEVELOPMENT/FIRST SEMINAR

Exposes students to research and theory in the area of memory development. Topics include infant memory and imitation, autobiographical memory and the effects of stress on memory. Special emphasis is placed on critical analysis of research studies. Prerequisites: PSYC150 and instructor's permission. Ms. Reese/Offered periodically

PSYC242 EVOLUTIONARY PSYCHOLOGY I/FIRST SEMINAR

An introduction to intellectual history and contemporary data concerning the idea that human behavior is determined by its evolutionary history. Instructor's permission. Mr. Thompson/Offered every year

PSYC243 SEMINAR IN PHENOMENOLOGICAL PSYCHOLOGY/FIRST SEMINAR

Describes and analyzes personal experience. Each of the readings describes a different aspect of experience. These are then compared with our own experience of our body, our environment, ourselves, others, our emotions, actions and thoughts, and with our imagination and our relationship to reality. Mr. de Rivera/Offered periodically

PSYC244 COGNITIVE DEVELOPMENT/FIRST SEMINAR

This seminar explores the perceptual and cognitive abilities of babies and young children. How does their knowledge of physical objects, space, the biological world, number, and people's minds and behaviors evolve? How does their ability to imitate and communicate develop? How do they learn to categorize and label objects? How does reasoning and problem solving change with age? Different theoretical approaches will be considered, especially with respect to the role of experience, innate factors, and cultural factors in development. PSYC120, 150 or instructor's permission. Ms. Wiser/Offered periodically

PSYC245 CULTURAL COMPARISONS IN PSYCHOLOGY AND ANTHROPOLOGY/FIRST SEMINAR

Examines the logic of making comparisons between societies and persons. Brings together empirical evidence from psychology and history of culture and cultural anthropology, and provides an interpretive framework for making sense of such evidence. Different uses of knowledge about comparisons of societies within a society (in the United States or other countries) in the hands of peace- (or war) makers, social-policy planners, etc. will be discussed. Prerequisites: some introductory geography course, PSYC101 and 156 or instructor's permission. Mr. Valsiner/Offered periodically.

PSYC246 PSYCHOLOGY OF PEACEMAKING/FIRST SEMINAR

Examines the psychological dimension that is always present in trying to achieve peace and justice within ourselves, in our interpersonal relationships and in intergroup relations. Topics include political sociology, the management of aggression, negotiation, mediation, forgiveness and training for the nonviolent action necessary to achieve justice. Mr. de Rivera/ Offered every other year

PSYC247 THEORETICAL MODELS OF COMMUNICATION IN PSYCHOLOGY/FIRST SEMINAR

Provides students with systematic knowledge about the ideas of communication as these have moved between psychology, anthropology, language philosophy, sociology and cultural studies. Mr. Valsiner/Offered periodically

PSYC248 CHILDREN'S UNDERSTANDING OF MIND/FIRST SEMINAR

Explores the development of children's understanding of mind. Topics include precursors to a "theory of mind," primates' understanding of mind, theories of "theory of mind," and social and cultural influences on its development. Ms. Vinden/Offered every year

PSYC249 WOMEN IN SOCIETY/FIRST SEMINAR

Examines how women's psychological functioning and development can be understood in societal context, with a central attention to differences as well as commonalities among women. We first examine anthropological and sociological studies of women's status in various societies and of different women's status within a given society. Economic, historical, institutional and symbolic processes impinging on the individual (such as societal discourses, language, media, social institutions) are considered, as well as the interconnections amongst those social processes. The seminar then focuses on individual functioning within that context, covering such topics as women's personal development, life issues of women, intellectual functioning and power, and women's roles and functions in society, including issues relating to role choices and adult development. Ms. Joffe Falmagne/Offered every year

PSYC250 THEORIES OF FAMILY PROCESSES/ FIRST SEMINAR

Exposes students to the major theories of family processes (e.g., biological, psychodynamic, structural and behavioral views). Focuses on how the family as a system responds to stress, such as developmental shifts, illness and psychological disorder. Film and literature portrayals of families are utilized. Instructor's permission. Staff/Offered periodically

PSYC251 LANGUAGE DEVELOPMENT/FIRST SEMINAR

A comprehensive survey of the basic issues and topics involved in the study of language development. The course begins with an examination of the structure of language and the varied uses of language in human activity. Against this background the course turns to the question of how children acquire language, with special emphasis on the contributions of cognitive, social and language-specific factors in this process. Prerequisite: PSYC150. Ms. Budwig/ periodically

PSYC252 SEMINAR IN AGGRESSION/FIRST SEMINAR

The various forms of aggressive behavior are considered from both a theoretical and practical perspective, with strong emphasis on psychological aspects of aggressive behavior. In addition to obvious forms of aggression, including domestic aggression, homicide, war and gang violence, aggressive aspects in art, music, sports and the corporate world are considered. Prerequisites: PSYC173 helpful but not required; instructor's permission. Staff/Offered periodically

PSYC254 GENDER DEVELOPMENT AND LANGUAGE/FIRST SEMINAR

Explores the language-gender relationship in children and adolescents, with special focus on the "social becoming" of males and females. Traditional theories of gender and language development will be explored and contrasted with discursive approaches that link gender and language to issues of self and identity formation. A practical project (observational or interview-based) will form a central piece of this course. Prerequisties: any BP/DEV/SP course (PSYC120-176) and instructor's permission. Mr. Bamberg/Offered every two years.

PSYC255 EXPERIMENTAL SOCIAL PSYCHOLOGY/ FIRST SEMINAR

The course will explore in some depth the contributions of experimental research to understanding various social psychological phenomena, including conformity and obedience; cognitive dissonance; self-concepts; impression formation and attribution; liking and interpersonal attraction; prejudice and stereotyping; social dilemmas; aggression; helping and altruism; and others. Each student will write a paper and lead a discussion on one such topic, which s/he will select. All students will read these papers and selected works in these topic areas.
Mr. Laird/Offered periodically

PSYC256 THE PSYCHOLOGY OF COUPLES AND INTIMACY/FIRST SEMINAR

This course presents the scientific study of couples' intimate relationships. The course provides a broad overview of what is currently known about adult romantic relationships, mate selection, intimacy development, marriage, relationship distress and divorce.
Mr. Cordova/Offered periodically.

PSYC259 PSYCHOTHERAPIES/FIRST SEMINAR

A variety of methods of reducing symptoms, solving problems in living, and promoting personal development are considered through class discussion and illustration and through intensive reading of primary sources.
Prerequisites: PSYC172 and instructor's permission. Mr. Cardemil/Offered every other year

PSYC261/PSYC361 HUMAN NEUROPSYCHOLOGY/LECTURE, DISCUSSION

Prominent lecturers review and discuss current research. Potential topics include overview of brain organization, brain electrical potentials, cerebral dominance, neuroanatomy and pathology of language, bilingualism, emotion and principals of neuropsychological assessment. Yearlong course; divisible. Open to advanced undergraduates and graduate students. Staff/Offered periodically

PSYC264/PSYC354 THEORY AND RESEARCH IN SOCIAL AND PERSONALITY DEVELOPMENT/ CAPSTONE SEMINAR

Explore theories and research on the socialization and individuation (and their interaction) of the developing infant, child and adolescent. Highlights contributions of the child, the family, the larger sociocultural context and their interplay. Topics covered include parent-child attachment, temperament, peer relations and development of self. Research methods and analysis in developmental research (e.g., modeling growth and change) will be addressed.
Ms. Grolnick/Offered periodically

PSYC265/PSYC365 PSYCHOLOGY OF MEN/ CAPSTONE SEMINAR

Explores topics related to the construction and experience of masculinity and the male gender role in different social contexts. Applies current theories of gender-role socialization to families, seeking help, men's health, friendships, sports and diversity. Instructor's permission required. Mr. Addis/Offered periodically

PSYC267/PSYC367 ADVANCED TOPICS IN EVOLUTIONARY PSYCHOLOGY/CAPSTONE SEMINAR

Each year, the participants focus on a different literature that brings Darwinian concepts to bear on problems in the field of psychology. In recent years, the seminar has focused on the problem of altruism, Darwinian medicine, and evolutionary psychiatry. Mr. Thompson/ Offered periodically

PSYC268/PSYC368 COMMUNICATIVE DEVELOPMENT/CAPSTONE SEMINAR

Focuses on various approaches to an understanding of human communication from an interdisciplinary perspective. Explores the relationship between social, cognitive and linguistic factors in children's communicative development. Prerequisite: PSYC150 and a First Seminar. Ms. Budwig/Offered periodically

PSYC270/PSYC319 ADVANCED TOPICS IN SOCIAL PSYCHOLOGY/CAPSTONE SEMINAR

An intensive treatment of selected areas in social psychological research and theory, including consistency theories in attitude formation and in interpersonal perception; attribution theory in self-perception; and social/situational determinants of normal, everyday behavior and of antisocial behaviors such as violence, criminality and riots. Ordinarily limited to senior majors in psychology or sociology. Instructor's permission. Mr. Laird/Offered periodically

PSYC271/PSYC371 SOCIAL, CULTURAL AND EVOLUTIONARY PERSPECTIVES ON TERRORISM/ CAPSTONE SEMINAR

The psychological and social roots of terrorist activities and mindset will be examined through investigation of the classic knowledge in social, cultural and evolutionary psychology. Mr. Laird, Mr. Valsiner, Mr. Thompson/ Offered periodically

PSYC272/PSYC372 IDENTITY FORMATION/ CAPSTONE SEMINAR

Explores the construction of adolescent and male identities in sociohistorical contexts. Particular emphasis is placed on the sociohistorical concepts of adolescence and masculinity as discourses, and how young males between 10 and 15 years of age position themselves vis-à-vis these discourses in their own talk. Prerequisite: PSYC214 or 253. Mr. Bamberg/ Offered periodically

PSYC273 INTEGRATIVE SEMINAR IN PSYCHOLOGY/CAPSTONE SEMINAR

This course provides an opportunity for undergraduates to participate in the department's Integrative Faculty Forum. The instructor will assign readings to prepare the students for each week's forum and assist each participant to prepare a paper that determines his or her understanding of one of the central themes of the forum's discussions. Staff/Offered every semester

PSYC275/PSYC375 SOCIETAL APPROACHES TO THINKING/CAPSTONE SEMINAR

This capstone seminar provides a theoretical and methodological frame for studying how thinking is shaped by the societal context in which the person is situated, by the social location the person occupies in that context, by the cultural discourses in which he/she participates and by the nature of what is being thought about. The seminar draws from readings from interdisciplinary sources, including psychology. We start with illustrative works from developmental psychology, sociocultural psychology and social psychology that approach thinking and reasoning in their social and cultural contexts. We also examine some works that do not emphasize the social context of thinking but that examine everyday thinking about social problems. We then discuss interdisciplinary writings that emphasize how societies and cultures are structured internally in terms of gender, "race" and class, and we examine empirical research on thinking and on personal epistemology that is grounded in this kind of societal framework. The last class of the semester will be a symposium in which each student will present her or his final paper in a 15 min. formal presentation, followed by class discussion. Instructor's permission. Ms. Joffe Falmagne/Offered periodically

PSYC276/PSYC376 ADVANCED TOPICS IN CULTURAL PSYCHOLOGY/CAPSTONE SEMINAR

Devoted to a specific subtopic unique for each semester. Designed for seniors and graduate students. Official permission not needed, but contact the instructor for specific topic. Mr. Valsiner/Offered every fall semester

PSYC277/PSYC366 RELATING PSYCHOLOGY TO HELPING PROFESSIONS INCLUDING MEDICINE

Relates knowledge, skills and values relied upon by helping professions (clinicians, counselors, physicians, dentists, etc). The course will focus on the accuracy of observations that are required in helping relationships. Each student will take the role of speaker/listener and observer. Relevant information will be obtained through diverse methods such as questionnaires and interviews. All aspects of the course, including case integration, are based on a partnership between the helper and other persons. Mr. Bibace/Offered periodically

PSYC278/PSYC378 ETHNOPSYCHOLOGY/ CAPSTONE SEMINAR

Explores how folk psychologies (i.e., what it means to be a person) vary from culture to culture, whether there are certain universal characteristics of all folk psychologies, and how to understand the similarities and differences across cultures. Ms. Vinden/Offered periodically

PSYC279/PSYC379 BASIC DEVELOPMENTAL THEORIES/CAPSTONE SEMINAR

Provides a systematic overview of core ideas in the selected theories and guides students to analyze these from the viewpoint of how theories relate to phenomena of development as well as empirical research practices. Instructor's permission. Mr. Valsiner/Offered periodically

PSYC282/PSYC392 SELF AND EMOTION/ CAPSTONE SEMINAR

Focuses on the processes by which self-knowledge and self-awareness are developed and maintained. Other topics include the development of self-conceptions, self-consciousness, the understanding and control of one's own actions, self-blame, and the effects of actions on attitudes and feelings. Instructor's permission required. Mr. Laird/Offered periodically

PSYC283/PSYC393 HISTORICAL BACKGROUND OF CONTEMPORARY PSYCHOLOGY/CAPSTONE SEMINAR

Includes an appreciation of the generative ideas and world hypotheses underlying contemporary psychological approaches and traces the earlier manifestations of these ideas and world hypotheses in intellectual history or history of ideas. Instructor's permission. Mr. Kaplan, Mr. Valsiner/Offered periodically

PSYC284/PSYC394 RESEARCH INTERVIEWING/ CAPSTONE SEMINAR

Interviewing is frequently relied upon as a method for obtaining data in studies. Interviews are also an intrinsic aspect of many disciplines in the faculty of arts and sciences as well as medicine. The course will review traditions utilized by various disciplines (ethnographic; medical interviewing including history taking in medicine; focus groups in political science and so on) and diverse specialties in psychology including clinical, developmental and industrial psychology. This course will be open to advanced undergrads and doctoral students in psychology. Instructor's permission. Mr. Bibace/Offered periodically

PSYC285/PSYC355 EMOTION AND INTERPERSONAL RELATIONSHIPS/CAPSTONE SEMINAR

What are emotions and how do they affect our behavior and our relationships? The course examines a number of theories. Prerequisite: First Seminar and instructor's permission. Mr. de Rivera/Offered every other year

PSYC286/PSYC356 INFANCY/CAPSTONE SEMINAR

This course will focus on the perceptual, motor and cognitive development of children during the first three years of life. It will include: object perception, development of self, speech and language development, play, memory, early communication, imitation, reasoning, gender development, attachment, reaching and walking, and the role of innate factors, family environment and cultural factors in these developments. Ms. Wiser/Offered periodically

PSYC290/PSYC350 MOTIVATION AND SELF-REGULATION/ CAPSTONE SEMINAR

Explores the motivation of human behavior (i.e., what energizes and directs our actions). Examines theoretical and empirical works relevant to motivation, particularly those emphasizing an active organism. Also applies motivational theories to various areas, including education, work, sports, psychopathology and psychotherapy. Prerequisite: First Seminar. Ms. Grolnick/Offered periodically

PSYC292 CAPSTONE RESEARCH IN PSYCHOLOGY/ TUTORIAL

Independent study at an advanced level for qualified students. Staff/Offered every semester

PSYC293 HONORS IN PSYCHOLOGY: SENIOR YEAR/ TUTORIAL

Students carry out a research project under the direction of a faculty member. Department permission required. Staff/Offered every semester

PSYC295/PSYC395 ADVANCED TOPICS ON GENDER AND SOCIETY/SEMINAR

This capstone seminar examines selected issues in the study of gender in its societal matrix, where gender is understood in its intersection with "race," class and ethnicity. The seminar draws from interdisciplinary resources and systematically guides students into scholarly research on specific topics in these areas. Along with class readings and discussions on issues of theory and methodology, students will select a topic of their choice to research in depth and discuss their findings with the class weekly. The course is suitable for psychology seniors and students from other disciplines or programs who wish to pursue psychological questions in this area. Prerequisites: Instructor's permission. Ms. Falmagne/Offered periodically

PSYC296/PSYC396 WHAT CHILDREN KNOW/CAPSTONE SEMINAR

Examines the evolution of children's knowledge about the physical world; the biological world; language, number and other symbolic systems; and the social world. How do infants' and children's perceptual and cognitive abilities interact with input from caretakers to advance their knowledge? How do symbolic systems such as language and writing get internalized? Related topics are the evolution of language in the human species, the history of number and writing systems and animal cognition. Prerequisites: PSYC120 or 150 and a First Seminar. Ms. Wiser/Offered periodically

PSYC297/PSYC377 SEMINAR IN HEALTH PSYCHOLOGY/CAPSTONE SEMINAR

Introduces the field of health psychology, covering such topics as stress and the psychosocial causes of illness, modification of problem health behaviors, issues in doctor-patient interaction, psychological effects of chronic illnesses and the role of the psychologist as a consultant in health-care settings. Instructor's permission. Mr. Bibace/Offered periodically

PSYC299 DIRECTED STUDY IN PSYCHOLOGY

Independent study for qualified students. Instructor's permission. Staff/Offered every semester

PSYC300 DEVELOPMENTAL PSYCHOLOGY FORUM/ GRADUATE SEMINAR

Devoted to the presentation and critique of different approaches to the individual and his/her ways of functioning in the world. The approaches considered may include: Piagetian, nativist, feminist or cultural/historical approaches, or may stem from interdisciplinary perspectives on a selected theme. The aim is to acquaint the participants with sympathetic expositions of several points of view and the application of these viewpoints to some selected topic of inquiry. Different topics are discussed in different years. Mr. Bamberg, Ms. Budwig, Ms. Falmagne, Ms. Reese, Mr. Valsiner, Ms. Vinden, Ms. Wiser and others/Offered every year

PSYC301 PROBLEM, THEORY AND METHOD/ GRADUATE SEMINAR

During the first semester, each faculty member meets once with the class to discuss his/her perspectives and research. Students prepare brief reports characterizing the links among each faculty member's perspective, research, problems and methods. During semester two, students formulate proposals, and the methods and ethics of research are discussed. Staff/ Offered every semester

PSYC302 STATISTICAL METHODS/SEMINAR

The first semester is devoted to a review of the basic concepts of statistics, such as probability, statistical inference, sampling distribution, t-test and regression, and nonparametric statistics. The second semester introduces analysis of variance and experimental design. Ms. Wiser, Mr. Stevens/Offered every year

PSYC303 ADULT ASSESSMENT/GRADUATE CLINICAL SEMINAR

Introduces measurement in clinical psychology (first semester) and intellectual and projective testing with adults (second semester). Staff/ Offered every year

PSYC304 CHILD ASSESSMENT/GRADUATE CLINICAL SEMINAR

Focuses on the administration and interpretation of various assessment instruments for children. Includes intelligence and personality testing and diagnostic interviewing. Mr. Ciottone, Ms. Grolnick/Offered every year

PSYC306 QUALITATIVE/INTERPRETIVE METHODS/ GRADUATE SEMINAR

Introductory seminar at the graduate level into qualitative research, its conceptual roots, covering the ontological and epistemological concerns, but centering on the methodological issues surrounding contemporary psychological research. Textbook readings will be supplemented with contemporary articles on ethnography, ethnomethodology, discourse, and narrative analysis. Mr. Bamberg/Offered periodically

PSYC310 THEORIES OF PSYCHOTHERAPY/ GRADUATE SEMINAR

Considers the concepts guiding various methods of psychotherapy. Mr. Cardemil/Offered every other year

PSYC311 PSYCHOPATHOLOGY/GRADUATE SEMINAR

Examines the difficulties of defining psychopathology and reviews the major diagnostic categories currently in use from a phenomenological, theoretical and research perspective. Special attention is given to gender, class and diversity issues. Staff/Offered every other year

PSYC312 THEORIES OF PERSONALITY/GRADUATE SEMINAR

Examines various theoretical approaches to personal consistency and individual differences. Staff/Offered periodically

PSYC316 SENSORY PROCESSES AND PSYCHOPHYSICS/ GRADUATE SEMINAR

Discusses psychophysical concepts and methods, including magnitude estimation and multidimensional scaling. Focuses on concepts and methods relevant to studies of taste, smell and flavor. Mr. Stevens/Offered periodically

PSYC317 MORAL DEVELOPMENT/GRADUATE SEMINAR

Attempts to integrate the literatures on moral development and prosocial behavior. Four problems are considered: (1) the relationship between justice and caring; (2) the social development of empathy and responsibility and the personal development of a moral identity; (3) the tension between the search for moral universality and the fact of cultural differences; (4) and the relationship between abstract moral reasoning and concrete moral action. Mr. de Rivera/Offered periodically

PSYC318 SYMBOLIC DEVELOPMENT IN CHILDREN AND HISTORY/GRADUATE SEMINAR

This course will be of interest to students interested in child development, cognition and the history of human knowledge. The topic, early symbolism (in the historical as well as ontogenetic sense), has both a rich history at Clark University and a contemporary relevance in cognitive psychology. We will study some of the following areas: the developments of writing, symbolic verbal communication and number in children and in history; magic and myths; symbolization in alchemy and in modern science; children's understanding of models, graphs and maps; and various aspects of mental representation in cognitive psychology. Ms. Wiser/Offered periodically

PSYC320 ADVANCED TOPICS IN COMMUNICATION/GRADUATE SEMINAR

Provides an overview of theory and research in the area of language development with special focus on functional approaches. Topics vary from year to year. Ms. Budwig/Offered periodically

PSYC321 TOPICS IN DISCOURSE ANALYSIS/ GRADUATE SEMINAR

Advanced graduate seminar in qualitative methods: explores the basic question of how meaning is situated in discourse, especially narrative discourse, and how we can get hold of it by methods of analysis. The course then applies some of these issues to ongoing research projects. Mr. Bamberg/Offered periodically

PSYC326 FEMINIST PERSPECTIVES ON SELF, MIND, IDENTITY AND DEVELOPMENT/GRADUATE SEMINAR

In this seminar, we survey several strands of feminist scholarship that address how mind, self and identity are constituted and develop in societal context. A central tenet is that gender, as a social formation intersecting with others, such as race and class, structures the social and cultural order both discursively and materially; psychological functioning and development are considered within that systemic framework. Feminist theories vary in particular in how they address the role of practice, discourse, social power relations and individual agency in the development of self, mind and identity; how they address the intersectional nature of social locations; and how they address the postmodern issues regarding the notion of a bounded, unified self. The seminar covers contrasting perspectives on these issues. Readings are structured so as to ground psychological theory and research within interdisciplinary analyses of societal processes. The aim of the seminar is to provide theoretical and methodological resources applicable toward conducting feminist research on mind, self and identity with a psychological grain of analysis, grounded in a broad societal frame of interpretation. Instructor's permission. Ms. Falmagne/Offered periodically

PSYC327 BASIC DEVELOPMENTAL THEORIES/GRADUATE SEMINAR

Provides a systematic overview of core ideas in the selected theories of development. Covered will be theories of Lamarck, Preyer, J.M. Baldwin, Piaget, Vygotsky, Werner, Kaplan, Gottlieb, Fischer, and van Geert. Analyzes theoretical systems from the viewpoint of how these theories relate to the phenomena of development as well as with empirical research practices. Mr. Valsiner/Offered periodically

PSYC328 ADVANCED TOPICS IN COGNITIVE DEVELOPMENT/GRADUATE SEMINAR

Reviews recent advances in cognitive science related to cognitive development. Topics include various neonativist approaches to language and knowledge development; connectionism; dynamic systems theory; animal cognition; development of analogival reasoning and mental models; cognitive approaches to the history of science; situated cognition; and science and mathematics education. Ms. Wiser/Offered periodically

PSYC330 EVOLUTIONARY PSYCHOLOGY/GRADUATE SEMINAR

An introduction, designed explicitly for clinical, developmental and social graduate students, to the explanation of human behavior by reference to Darwinian Evolution. Mr. Thompson/Offered periodically

PSYC331 MULTIVARIATE ANALYSIS/GRADUATE SEMINAR

Introduces students to multivariate statistics. The models, assumptions, data screening and interpretation of results for factor analysis, multiple regression and multidimensional scaling, for example, are discussed. Mr. Stevens/Offered periodically

PSYC332 SYMBOLISM IN COGNITIVE DEVELOPMENT/GRADUATE SEMINAR

An hour-long discussion of papers on various cognitive science approaches to cognitive development (e.g., pretend play, nature and phylogenetic development of symbolic thinking, situated cognition approaches to literacy). Topics are selected to be relevant to students' research. An additional hour-long discussion with individual faculty and a presentation to the group are also required. Ms. Reese, Ms. Vinden, Ms. Wiser/Offered every year

PSYC333 PRETENSE, IMAGINATION AND CREATIVITY/GRADUATE SEMINAR

Pretense, imagination and creativity are different but overlapping activities. An examination of theories and experiments, both old and current, will enable us to discuss questions regarding what these activities are, how they develop, and how they function in relation to other areas of the child's development and the cultural context in and through which the child is developing. Students will be expected to contribute readings to the course that are related to the core topics and reflect their own interests. Ms. Vinden/Offered periodically

PSYC334 CRITICAL PSYCHOLOGY FORUM/GRADUATE SEMINAR

This is an interdisciplinary forum for bringing issues of contemporary social, personality, evolutionary and cultural psychology to be actively discussed by all graduate students. The aim is to acquaint the participants with several opposing views and to demonstrate how such views can lead to new knowledge. Different topics are discussed in different years. Staff/ Offered periodically

PSYC347 LANGUAGE AND HUMAN DEVELOPMENT/GRADUATE SEMINAR

Introduces students to central debates concerning the relationship between language, thought and culture. Drawing upon readings from a variety of disciplines including psychology, anthropology and linguistics, we consider language and context, communicative practices, and how developmental psychologists have thought about the interface between language, thought and culture. Students have the opportunity to relate ongoing interests to themes from the seminar. Ms. Budwig/Offered periodically

PSYC351 METHODOLOGIES OF SYSTEMIC ANALYSES OF SINGLE CASES/GRADUATE SEMINAR

The goal is to provide graduate students with knowledge and practical experience of analysis of individual cases (both for research and practice). The seminar covers both qualitative and quantitative approaches to single-case analysis. Mr. Valsiner, Mr. Laird, Mr. Bibace/Offered periodically

PSYC362 CURRENT PERSPECTIVES IN EVOLUTIONARY AND SOCIAL PSYCHOLOGY/ GRADUATE SEMINAR

Evolutionary theory is both challenged by and contributes to the understanding of social phenomena. The course explores classic topics in social interaction, such as group process, conformity and obedience, interpersonal attraction, emotion, self and identity, and altruism, bringing to bear simultaneously the perspectives of evolutionary psychology and standard social psychology. Mr. Laird/Offered periodically

PSYC364 SEMINAR: DIVERSITY ISSUES/ GRADUATE SEMINAR

This course was developed to fulfill the Massachusetts State Licensing Board requirement for training in issues of cultural diversity. It examines the sociocultural context of human behavior with a particular focus on issues of diversity in the clinical situation.
Mr. Cardemil/Offered every other year

PSYC374 COUPLES THERAPY PRACTICUM/ GRADUATE SEMINAR

Students in this practicum will learn how to assess and treat the full spectrum of mildly to severely distressed couples. The treatment approach emphasizes fostering intimacy, closeness and mutual acceptance, while at the same time teaching useful communication and problem-solving skills. We will be treating both married and unmarried couples as long as they are currently living together and are not violent. Depending on the number of students in the practicum, students will either treat couples as a part of a two-person team or as the sole therapist. Class time will be devoted to group supervision, discussions of the broader issues of couple therapy and a weekly journal club. Students should expect to see between two and three couples over the course of the one-year practicum, with each course of therapy being approximately 20 to 25 sessions. Students in the practicum will learn about the correlates and predictors of marital distress, how to assess a couple's level of distress and commitment, how to formulate and test therapeutic hypotheses over the course of treatment, and how to conduct a very powerful and effective approach to couple therapy. Students should expect to be proficient and capable of proceeding quite independently by the end of this one year practicum. Mr. Cordova/Offered periodically.

PSYC380 PSYCHOTHERAPY PRACTICUM/ GRADUATE CLINICAL PRACTICUM

Supervised experiences in psychotherapy.
Staff/Offered every semester

PSYC382 ADVANCED THERAPY PRACTICUM/ GRADUATE CLINICAL PRACTICUM

Staff/Offered every semester

PSYC383 COGNITIVE AND BEHAVIORAL ASSESSMENT/GRADUATE CLINICAL PRACTICUM

Staff/Offered periodically

PSYC384 CONSULTING PRACTICUM/GRADUATE CLINICAL PRACTICUM

Mr. Bibace/Offered periodically

PSYC385 CHILD THERAPY PRACTICUM/ GRADUATE CLINICAL PRACTICUM

Ms. Grolnick, Mr. Ciottone/Offered every other year

PSYC386 NEUROPSYCHOLOGY ASSESSMENT/ GRADUATE CLINICAL PRACTICUM

Staff/Offered periodically

PSYC387 ETHICS IN CLINICAL PSYCHOLOGY/ GRADUATE CLINICAL PRACTICUM

For first-year clinical students. Staff/Offered every year

PSYC388 INTERVIEWING PRACTICUM/GRADUATE CLINICAL PRACTICUM

For first-year clinical students. Staff/Offered every year

PSYC389 CLINICAL WORKSHOP/GRADUATE CLINICAL SEMINAR

For all clinical students in residence. Clinical Staff/Offered every semester

PSYC390 PROGRESS IN PSYCHOLOGY/GRADUATE SEMINAR

This seminar will acquaint advanced graduate students with the most recent theoretical, empirical and methodological thought in the discipline. Staff/Offered every semester

PSYC391 MASTERS SEMINAR/GRADUATE SEMINAR

Provides advanced graduate students with a systematic framework for knowledge about professionally relevant accomplishments in their professions: second-year project, M.A. thesis, preparation of manuscripts for publication, build-up of curriculae vitae. Staff/offered every semester

PSYC397 MASTER'S THESIS

Prerequisite: permission of thesis adviser. Variable credit. Staff/Offered every semester

PSYC398 INTERNSHIP

PSYC399 DIRECTED STUDY

Prerequisite: permission of instructor. Variable credit. Staff/Offered every semester

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in Psychology. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See Biology

BIOL140 Biology of the Brain
BIOL141 Brain and Behavior

See Philosophy

PHIL170 Philosophy of Psychology
PHIL211 Philosophy of Cognitive Science

See Peace Studies

PSTD101 An Introduction to Peace Studies and the Psychology of Peace

SCREEN STUDIES

(See Visual and Performing Arts)

SOCIOLOGY

Program Faculty

Patricia Ewick, Ph.D., *Chair*
Parminder Bhachu, Ph.D.
Eric Gordy, Ph.D.
Bruce London, Ph.D.
Deborah Merrill, Ph.D.
Robert Ross, Ph.D.
Shelly Tenenbaum, Ph.D.

Program Overview

The American sociologist C. Wright Mills described the perspective of sociology as the "sociological imagination." This point of view enables us to see how individual lives are shaped by larger social forces. Mills argued that we cannot fully understand ourselves without understanding the society in which we live. At Clark, the sociology faculty is committed to developing such an analytic capacity in students.

Through the examination of social processes, such as social stratification, social movements and social change, and through an investigation of diverse social institutions, such as the law, family, medicine and religion, students acquire the conceptual and analytical tools to enhance both their understanding of their own lives and the world in which they live.

One of the questions most frequently asked by students is, "What can I do with a degree in sociology?" Because of the emphasis placed on critical thinking, analytical and communicative skills, and methodological training, students majoring in sociology are well equipped to enter a variety of occupations, as well as professional careers and graduate schools. Sociology majors have gone to law school, medical school, social-work and business school. Others have become marketing analysts, government policy analysts, university administrators and political consultants.

Major Requirements

The sociology major consists of 10 courses within the department and a minor, concentration, or a program in the social sciences or closely related field. The 10 departmental courses are to be distributed as follows:

All majors must complete:

- SOC010 Introduction to Sociology
- SOC105 The Social Research Process
- SOC107 Classical Sociological Theory
- SOC200 Class, Status and Power

Majors must complete SOC105 The Social Research Process and SOC107 Classical Sociological Theory prior to their senior year. SOC107 is a prerequisite for SOC200 Class, Status and Power.

Six additional sociology credits, one of which must be a capstone. At least three of these six courses must be at the 200 level. These credits may be fulfilled through the completion of six regular courses or through a combination of course work, internships (maximum of two credits) or directed research. Of the four required courses for a major, three must be taken on campus. Of the 10 total courses for the major, six must be taken on campus. COPACE courses are not counted for Sociology credit. To receive sociology major credit, students must earn a grade of C- or better.

The Capstone Requirement

Sociology majors must take a capstone seminar. To enroll in a capstone seminar, students must have already completed SOC010 Introduction to Sociology, SOC105 Social Research Process, SOC107 Classical Sociological Theory and all course prerequisites in the subject area of your capstone seminar. The capstone seminar will build upon knowledge gained in previous courses and will include a serious research component. All courses between 271 and 296 are capstone seminars. SOC298 Senior Honors Thesis also fulfills the capstone requirement.

Honors Program

Senior Honors Thesis

Selected seniors may wish to complete an honors thesis. This is usually the equivalent of two full courses in Sociology. To prepare for the thesis, students will be encouraged to do a directed reading or research in the fall of their senior year. Students who select this option are expected to devote approximately 50 percent of their senior year to major research. Application to the sociology department by those with a 3.2 average in the major must be made by March 1 of the junior year. Only students whose proposal is approved may waive the capstone seminar requirements. Complete guidelines are in the Sociology Student Handbook, which is available in the department office or on line.

Sociology Minor

A sociology minor consists of six courses with the following provisions: Three of our four core courses:

- SOC010 Introduction to Sociology
- SOC105 The Social Research Process
- SOC107 Classical Sociological Theory
- SOC200 Class, Status and Power.

Please note that SOC107 is a prerequisite for SOC200. Students who have completed an equivalent methods course are encouraged to take the remaining three core courses. Three additional sociology courses, at least two of which must be at the 200-level. Four of the six courses must be taken on campus. Students must earn a grade of C- or better to receive sociology credit.

Courses

SOC010 Introduction to Sociology/ Variable Format

Overview of sociology, its areas of study, methods of inquiry and concepts for the analysis of society. Seeks to understand social structure, social change and individual relationship to them. Fulfills introductory course required for majors. Ms. Ewick, Ms. Tenenbaum, Mr. London/Offered every semester.

SOC036 Race and Ethnicity Across Borders: Comparing the Local and Global/ First-Year Seminar

Using a comparative framework, this seminar will examine the concepts of race and ethnicity in local, national and global locations. Particular emphasis will be on race and ethnicity in changing cultural and political contexts in an ever-changing globally connected world. For example, how have the events of September 11 in New York determined and constructed racial and ethnic identities? What are social, cultural and political dynamics that shape racial identities and ethnic stereotypes? Why do derogatory racial labels get attached to people? How do ethnic groups get defined in volatile contexts? Students will read autobiographies and biographies to explore how formative racial and ethnic experiences have shaped their own lives and identities and those of others who have documented their lives in books and on film. What can we learn from these racial and ethnic imaginations that can help us theorize race and ethnicity across borders through sophisticated and sensitive theoretical frameworks. Fulfills the comparative perspective. First preference will be given to students in the International Studies Stream. Others will be admitted on a space available basis. Ms. Bhachu

SOC105 Social Research Process/Lecture, Discussion

General introduction to logic, techniques and ethics of social-science inquiry. Reviews qualitative and quantitative methods, as well as sampling. Fulfills the methods requirement for majors. Not open to seniors. Ms. Ewick, Ms. Merrill, Staff/Offered every semester

SOC107 Classical Sociological Theory/ Variable Format

A critical and comparative survey of the major theorists of early sociology. The course is centered around the "canonical" core of sociological theory as represented by selected works of Marx, Durkheim and Weber. In addition, some contemporary perspectives are explored. These more contemporary perspectives may include critical theory, psychoanalytic theory, symbolic interactionism and standpoint theories. Emphasis is placed on differing concepts of social structure, social and historical change and the meaning of social action. Fulfills the social-theory requirement for majors. Mr. Gordy/Offered every semester

SOC110 Sociology of Gender/Lecture, Discussion

Focusing on sociological, historical, psychological and economic dimensions of gender, this course examines the ways in which the social system and its institutions create, maintain and reproduce gender. The course emphasizes the processes through which gender categories are constructed and represented, as well as the consequences of these categories for the lives of individuals. Ms. Ewick/Offered periodically

SOC125 Cities and Suburbs/Variable Format

Introduces urban sociology. Examines the structure and development of American metropolitan areas and community power, with special attention to changing functions of cities and suburbs. Examines different ways of life in cities and suburbs. Mr. Ross/Offered every year

SOC130 Genocide/Lecture, Discussion

Provide students with a comparative perspective that highlights both theory and concrete examples of genocide. The course will begin with an overview of sociological perspectives that explore structural, cultural, psychological and political conditions that make the occurrence of and experience of genocidal behavior more probable. After surveying sociological theories of genocide, we will explore four cases of genocide that took place over the course of centuries and across several continents. The course will end with discussion of the prevention of genocide. Ms. Tenenbaum/Offered every year

SOC135 MEDIA AND SOCIETY/LECTURE, DISCUSSION

Analyzes the development, history and structure of media of mass communication. Examines research on a variety of contemporary issues in the sociology of media. A variety of theoretical and methodological approaches is presented to questions of analysis and effects of communication media. Mr. Gordy/Offered every year

SOC160 GLOBAL CULTURES AND IDENTITIES/LECTURE, DISCUSSION

Explores the impact of local, national and international forces in the formation of cultural identities at a time of rapid social changes in the 1990s. Focuses on contemporary urban cultures to examine local and national identities as they are globally determined. Emphasizes the elastic and the plastic nature of cultures and the importance of time, place and space to understand the emergence of new culturally diverse settings. Examines the nature of social and cultural change in local, national and global economic and political spaces. Ms. Bhachu/Offered every year

SOC175 THE FAMILY/LECTURE, DISCUSSION

Examines the assumed collapse of the American family and the causes of this collapse. Also considers challenges to the new family, such as dual-career couples and the resulting division of labor in the home. Working-class, African-American and homeless families are also discussed. Ms. Merrill/Offered every year

SOC180 AGING AND SOCIETY/LECTURE, DISCUSSION

This course challenges stereotypes about the elderly and aging as a "problem" for society. Focuses on the diversity of the aged and impact of social structures on the experience of aging in the United States. Ms. Merrill/Offered every year

SOC200 CLASS, STATUS AND POWER/VARIABLE FORMAT

Analyzes the nature, dynamics and historical development of social inequality. The economic and political power of the upper class, social mobility, the process of deindustrialization, feminization of poverty and the intersection of race and class are studied. Required for the major. SOC107 is a prerequisite. Mr. London, Mr. Ross, Ms. Tenenbaum/Offered every year.

SOC203 AMERICAN-JEWISH LIFE/VARIABLE FORMAT

Introduction to the social scientific study of American Jewry. Topics include immigration, economic mobility, intermarriage, Jewish feminism, American Judaism, ethnic identity, anti-Semitism and political behavior. Throughout the semester, comparisons between Jews and other groups are highlighted. Ms. Tenenbaum/Offered every other year

SOC205 SOCIOLOGY OF THE ENVIRONMENT/LECTURE, DISCUSSION

Introduction to environmental sociology, a newly emerging area of interest. Focuses on the reciprocal relationships between society and the environment. The theoretical perspectives of human ecology and political economy are used to illuminate topics such as population, technology and environmental degradation, the environmental movement, north-south environmental conflicts, and food and hunger. Mr. London/Offered every year

SOC225 RELIGION AND SOCIETY/LECTURE, DISCUSSION

This course introduces students to key theoretical and empirical works in the sociology of religion. We apply major theoretical perspectives to contemporary religious life. We ask how individuals find meaning in and are shaped by their experiences of religion. Special consideration is given to how gender, race and ethnicity influence religious life. We explore the rise of new religious movements (historical and contemporary), the relationship between religion and modernity, and elements of fundamentalism and conservatism in Christianity and Judaism. Staff/Offered periodically

SOC231 MEANING, POLITICS AND DIFFERENCE: SOCIOLOGY OF CULTURE/LECTURE, DISCUSSION

Presents an overview of the principal concepts, frameworks and theoretical approaches currently used in the sociology of culture and samples some of the major contemporary research in the field. The goal is to offer a range of approaches by which sociologists can examine and understand cultural forms and cultural phenomena. Readings focus on relations between culture and history, culture and power, culture and politics, culture and resistance, and culture and local environments. The course is intended to engage contemporary debates in culture, rather than to offer a conclusive and synthetic definition of the field. SOC010 or COMM101 is a prerequisite. Open to juniors and seniors only. Mr. Gordy/Offered every other year

SOC232/IDCE333 POPULATION, ENVIRONMENT AND DEVELOPMENT/VARIABLE FORMAT

Studies the statistical description and analysis of human populations. Focuses on relationships between and among social, cultural, political and economic forces; and population structures, processes and characteristics. Such demographic factors contribute to the understanding of social issues, such as the aging of the population, the changing status of women, rapid world urbanization and Third World economic problems. Mr. London/Offered every year

SOC241 SOCIOLOGY OF MEDICINE/LECTURE, DISCUSSION

Examines the role of health-care professionals and the health-care industry, as well as health and illness as social phenomena. The course also addresses problems in the health-care system at the national level and reviews potential solutions to the mounting crisis in the provision of health services. Ms. Merrill/Offered every year

SOC242 HUMAN RIGHTS AND TRANSITIONAL JUSTICE/LECTURE, DISCUSSION

This course will explore the development of international law in relation to violations of human rights from the signing of the Hague and Geneva conventions to the present. The course will explore what approaches have been tried, the advantages and drawbacks of each, and the recurring dilemma faced by transitional regimes of whether to "trade justice for truth." The principal examples will be: the International Military Tribunals at Nuremberg and Tokyo; the investigative commissions appointed by South Africa, Argentina and Chile; the International Criminal Tribunals for the former Yugoslavia and Rwanda; and the ongoing debate over the founding of the International Criminal Court. Mr. Gordy/Offered periodically

SOC243 POLITICAL SOCIOLOGY/VARIABLE FORMAT

Examines various dimensions of political power in societies. Considers various definitions of power and the state. Empirical studies focus on political communities and political inequalities; states, bureaucracies and "pressure"; political culture and communication; and revolution. Emphasizes historical, comparative and international dimensions. Mr. Gordy, Mr. Ross/Offered periodically

SOC244 THE COMMUNITY/LECTURE, DISCUSSION

An analysis of one of the most enduring ideas at the heart of the discipline of sociology: the idea of community. How do we define "community"? What is the meaning of community for individuals and groups? How has the nature of community changed over time? And what are the central concepts, issues, theories and methods used by sociologists in the writing of community studies? Mr. London/Offered periodically

SOC249 THE SOCIOLOGY OF DEVELOPMENT AND UNDERDEVELOPMENT/LECTURE, DISCUSSION

Examines and analyzes the transformation of postcolonial, Third World societies undergoing capitalist or socialist development. The course discusses theories of development in a social, economic and demographic context. It also explores the international division of labor, urbanization and basic needs provision.
Mr. London, Staff/Offered periodically

SOC250/IDCE303 CULTURE, CONSUMPTION AND CLASS IN LOCAL AND GLOBAL CONTEXTS/ LECTURE, DISCUSSION

Focuses on political, cultural and ethnic aspects of consumption. Emphasizes how people and groups define themselves through symbols in consumer products. Examines the interplay between the world market and cultural identities, local and global processes, and consumption and cultural strategies to discover the consumer subcultures. Students conduct a small ethnographic project on consumer pattern, product or culture. Ms. Bhachu/Offered every other year

SOC252 RACE AND AMERICAN SOCIETY/ LECTURE, DISCUSSION

Focuses on the political, economic and social lives of Native Americans, Latinos, African-Americans, Asian-Americans and Whites. Topics discussed include racism, the civil-rights movement, gender, class, popular culture and public policies. A central assumption of this course is that we must turn to the historical experience to understand contemporary race relations. Ms. Tenenbaum/Offered every year

SOC255/IDCE378 THE CREATION OF NATIONALISM, NATIONALIST CULTURES AND SYMBOLS/LECTURE, DISCUSSION

At a time of rapid global changes and globalization, nationalisms and nationalist cultures have grown dramatically. This course explores how nationalist identities and resistance are determined by culture and the cultural symbols, such as key consumer commodities, cultural symbols, gender, language and dress codes.
Ms. Bhachu/Offered every other year

SOC258 WOMEN IN JEWISH CULTURE/LECTURE DISCUSSION

Seeks to uncover the experiences of Jewish women and uses gender analysis to enrich our understanding of Jewish life. Raises questions about the status of women in texts, rituals and communal practices from the biblical period to the present. Ms. Tenenbaum/Offered every other year

SOC259 SOCIOLOGY OF ORGANIZATION/ LECTURE, DISCUSSION

Examines the theory and practice of organizations. Students examine major concepts in the historical development of modern organizations (e.g., bureaucracy) and apply their learning to the investigation of contemporary problems and issues of complex organizations.
Ms. Ewick/Offered periodically

SOC260/IDCE309 ROOTS AND ROUTES: IMMIGRANTS, DIASPORAS AND TRAVEL/LECTURE, DISCUSSION

Examines immigrants and the cultures they create through movement and settlement and through the many borders they cross. Also covered is the diasporas immigrants create through the travel they undertake both voluntarily and in some cases through forced migration. How do borders, journeys, migration and diaspora shape the identities of individuals, groups, cultural objects and commodities? Ms. Bhachu/ Offered every year

SOC262 LAW AND SOCIETY/LECTURE, DISCUSSION

Examines the relationship between law and other aspects of social life. Relying on case studies and other empirical studies of the legal system, particular attention is paid to the following topics: law and justice, crime and social control, law and social change, civil justice and legality and everyday life. Ms. Ewick/Offered every year

SOC263 DEVIANCE/VARIABLE FORMAT

Why are some behaviors, differences and people stigmatized and considered deviant while others are not? This course examines theories of social deviance that offer answers to this and related questions such as: How and why are behaviors designated as deviant? How do individuals enter a deviant lifestyle? And how do various social statuses, such as sex, affect the incidence, type and responses to deviant acts? Ms. Ewick/Offered periodically

SOC265 SOCIAL MOVEMENTS: QUEST FOR JUSTICE/ VARIABLE FORMAT

Modern American movements (feminist, civil rights, etc.) are used as examples for discussion of social movements. Problems of recruitment, organization and ideology are analyzed. The form of the course depends on the number of students registering. Mr. Ross/Offered periodically

SOC270 EDUCATION AND INEQUALITY: RESEARCH AND WRITING

Focuses on the relationship between social class and the institution of education, on the effect that social class has had on both the production and reproduction of our educational system, and on the connection between schooling and unequal educational opportunity. Mr. London/Offered periodically

SOC273 EFFECTS OF MASS MEDIA/SEMINAR

The first half of the semester will be devoted to exploring the history and development of the most influential approaches to the study of effects. During the rest of the semester we will explore some critical contemporary issues through the lens of effects research. Groups of students will develop and carry out an original research project over the semester and present the findings to the campus community. Prerequisite: SOC135 or instructor's permission. Mr. Gordy/Offered every other year

SOC275 FAMILY ISSUES IN AN AGING SOCIETY/ SEMINAR

Examines how the aging of our society has affected family life for both elders and younger generations. Particular attention is paid to the topic of family caregiving. Emphasizes a life-course perspective and gives attention to the impact of mid-life family events on later life relationships. Prerequisites: SOC175 or SOC180. Ms. Merrill/Offered every other year

SOC276 ENVIRONMENT AND INEQUALITY

A capstone seminar that focuses on the relationship between social inequality and environmental problems, especially the connections between the unequal distribution of wealth and power, and the causes and consequences of environmental degradation. All students conduct empirical research using data sets provided by the instructor. Mr. London/ Offered periodically

SOC282 CONTEMPORARY SOCIOLOGICAL THEORY/SEMINAR

Examines various currents in sociological theory, which developed during the last half of the 20th century. Considers relationships among social theory, political ideology and power. Topics may include, but are not limited to, feminist theory, cultural theory, globalization and critical theory. Mr. Gordy/Offered occasionally

SOC285 POVERTY/SEMINAR

Analyzes who is poor and how government policy affects the poor. Compares the U.S. experience to Western Europe, and addresses the question of whether there is a permanent underclass of poor people. Additional issues of policy and analysis vary by year. Prerequisite: SOC200 or instructor's permission. Mr. Ross/ Offered every other year

SOC288/IDCE347 GLOBALIZATION: FASHION AND FOUL PLAY/SEMINAR

Examines processes of economic and social development. Focuses on changes in the structure of industrial regions of the advanced capitalist countries and changes in the structure of developing and more peripheral regions. The conceptual framework is that of a global capitalist system undergoing significant transformation in the development of labor and capital. Prerequisites: SOC200 or instructor's permission. Mr. Ross/Offered periodically

SOC290 CITIES IN GLOBAL PERSPECTIVE/SEMINAR

Based on three dimensions of comparison: historical, cross-national within advanced capitalism, and a contrast between the processes and structures of urbanization in the First and

Third Worlds. Prerequisites: SOC125 or instructor's permission. Mr. Ross/Offered periodically

SOC294 GLOBAL ETHNOGRAPHIES: ETHNOGRAPHERS IN THE MAKING FOR THE 21ST CENTURY/SEMINAR

Focuses on emergent ethnographic concerns, which attempt to capture fluid cultural processes and connections as they unfold in late-1990's global arenas. Deals with multiple-sited ethnography of movement, displacement, replacement and the global traffic in culture. It also analyzes traditional ethnographies and ethnographic methods of the founding pioneers, including the work of the famous Clark University ethnographer Franz Boas. Prerequisites: SOC160 or instructor's permission. Ms. Bhachu/Offered every year

SOC296 INTERNSHIP SEMINAR

Focus changes each year depending on faculty interest. Foci include gender, community organizing and aging. Ms. Tenenbaum/Offered periodically.

SOC298 THESIS STUDIES

Independent study submitted for honors consideration for senior sociology majors. Students should sign up with the faculty member whose areas of interests are most suited to their own. The emphasis is on independent research undertaken with faculty guidance and supervision. Generally requires two credits in each semester of the student's senior year and culminates in a thesis submitted for honors consideration. Staff/Offered every year

SOC299 SEC. 9 INTERNSHIPS IN SOCIOLOGY

Supervised field training in community and organized settings is available. Internship is the equivalent of one to four full courses in sociology. Variable credit. Staff/Offered every semester

SOC299.1 DIRECTED READINGS IN SOCIOLOGY

Staff/Offered every semester

SOC299.2 DIRECTED RESEARCH

Staff/Offered every semester

SOC299.5 SPECIAL PROJECTS

Staff/Offered every semester

THEATER ARTS

(See Visual and Performing Arts)

VISUAL AND PERFORMING ARTS

Sara Walker, M.F.A., *Chair*

Visual and Performing Arts is composed of individual academic programs in art history, studio art, music, screen studies and theater arts. Whether students prefer to study the history, criticism, philosophy and theory of the arts or to engage in the creative activity of studio work, composition or performance, there are courses, concentrations, minors, specializations and majors available. A major in a given area can be the core for a preprofessional program; or the student may cross traditional disciplinary lines—by double majoring, for instance, or by designing a major or combined major that includes two or more areas of study. Students, with a program director, may develop a four- or five-course sequence as a minor or an area of specialization. Majors and nonmajors are welcome to attend the many art exhibitions, film presentations, and musical, theatrical and dance performances.

Because art reflects the trend of thought and the impact of events of its time, it relates to many other areas of study—history, philosophy and psychology. The study of the arts thus can enhance one's understanding and appreciation of other disciplines. For students interested in the arts, humanities, or social and natural sciences, the study of art can provide both majors and nonmajors with an especially enriching liberal-arts education. Courses in art offer opportunities to develop critical skills, acquire resources for visual thinking and communication, and engage in personal creative expression. For both future art scholars and professionals, Clark's art programs provide a solid foundation that will serve them well in their graduate studies or careers.

The Visual and Performing Arts Department is part of the Higgins School of Humanities.

The following Academic Programs will follow this description:

Art History and Criticism
Studio Art
Music
Screen Studies
Theater Arts

ART HISTORY AND CRITICISM

Program Faculty

Rhys Townsend, Ph.D., *Program Director*
Gauvin Bailey, Ph.D.
Kristina Wilson, Ph.D.

Adjunct Faculty

Sudharshan Duraiyappah, B.S.C., B.A.
Peter E. Nulton, Ph.D.
Milda Richardson, Ph.D.

Emeritus

Samuel P. Cowardin III, Ph.D.

Undergraduate Program

The art-history major focuses on the visual arts and the social, cultural and historical context in which art is created. Majors may take courses in Ancient, Renaissance and Baroque, and Modern art history or other areas. For those considering teaching, museum and gallery work, arts conservation or arts management, the major is designed to meet the student's needs and may include an internship at an appropriate institution.

Major Requirements

A total of 14 courses are required, 10 of which are art-history courses.

1. Art History Courses
    a. ARTH010 From the Stone Age to Our Age (or equivalent course or superior advanced-placement performance)
    b. ARTH150 Methodology and Historiography
    c. Eight courses in the following areas: Ancient, Renaissance/Baroque, Non-Western and Modern, with not more than two courses in any one area; a total of three must be at the 200 level.
2. Related Courses
    Four courses in visual and performing arts, of which two must be in studio art. These courses must be selected in consultation with the adviser.

Double and Combined Majors

Because of its interdisciplinary nature, students may wish to double major in art history and another discipline. In such cases, the number of required courses is reduced to 11. Another option is the combined art history-studio art major. Eight art-history courses and three visual and performing arts courses normally serve as the art-history component of a double major or a student-designed major. A combined major, requiring a minimum of eight art-history courses, may be developed in consultation with the studio-art and art-history program advisers.

Honors Program

Requires the 14 courses for the art-history major, including a directed reading (ARTH299 Sec. 1) in the fall of the senior year and the senior honors thesis (ARTH299 Sec. 8) in the spring. Students wishing to take honors in art history should identify an area of interest, choose an appropriate adviser and apply for eligibility to the art-history faculty before the end of the junior year. See the course description under ARTH299 Sec. 8 Honors in Art History, for details.

Art History Minors

All courses and seminars in this program are open to nonmajors. Students whose major lies in another discipline may minor in art history. Six courses are required for the art-history minor.

Requirements:

1. ARTH010 From the Stone Age to Our Age
2. Five additional courses, with no more than three in one area of specialization (i.e., Ancient, Renaissance/Baroque, Modern) and at least two at the 200 level.

Courses

ARTH010 FROM THE STONE AGE TO OUR AGE: MONUMENTS AND MASTERPIECES OF WESTERN ART/LECTURE, DISCUSSION

Begins with a reach back in time to the dawn of history 20,000 years ago when the earliest creators in the western world painted powerful images of animals on walls located in the eerie, dank depths of cave interiors. This startling act marked the beginning of communication through visual images. We will move chronologically through history, exploring the major monuments and masterpieces of painting, sculpture, and architecture and the cultures which produced them. By focusing primarily, although not exclusively, on select key monuments—the Pyramids, the Parthenon, the Pantheon—and on the masterpieces of major artists—Raphael, Rembrandt, Renoir, Rothko (among others)—from prehistoric times to our own computer age, we will gain an understanding of visual culture and of the needs and aspirations that are expressed. Staff/Offered every semester

ARTH105 THE AEGEAN WORLD

An introduction to the architecture, sculpture and painting of Egypt and the Aegean during the Bronze Age. The course covers the Old and New Kingdoms of Egypt, the cultures of the Aegean islands, Crete, and mainland Greece. Examines artistic forms and traditions of each region in order to shed light on the individual religious and social contexts in which they evolved. Highlights the archaeologists whose discoveries have illuminated the history and artifacts of these lands. Field trips to area museums. Mr. Townsend/Offered every other year

ARTH106 INTRODUCTION TO ARCHAEOLOGY

Concentrates on the Mediterranean region, tracing the history and methods of archaeology—emphasizing its unique combination of the sciences and the humanities—from its first steps to its technologically advanced state today. Selected case studies will demonstrate how archaeology has illuminated the ancient world. Also examines the newly developed field of underwater archaeology. Mr. Townsend/Offered every other year

ARTH109 CLASSICAL MYTH AND THE GREEK

Investigates selected classical myths and the concept of the “Greek ideal” as expressed in art, both in classical Greece and Rome and in various later periods, including the 20th century. Approaches the myths from the standpoint of origin and significance, changing modes of representation and manipulation for political purposes. The “Greek ideal” is also examined both as it originally developed and as it was conceived in subsequent ages. The course also considers the changing attitudes towards the classical world and the significance of the classical tradition in art and history. Field trips to area museums. Mr. Townsend/Offered every other year

ARTH110 ANCIENT GREEK ART

This intensive survey reviews Greek art from the collapse of the Minoan-Mycenaean world in the 12th-century B.C. to the close of the Hellenistic period in the first-century B.C. Geographically, it reaches from Greece, westward to the Greek cities of South Italy and Sicily and eastward to the Hellenized lands of Asia Minor, Egypt and the Near East. The course discusses the concept of artistic originality and stylistic development, the relationship between art and politics and the contribution of Greek art to the history of the visual arts in the Western world. Field trips to the Worcester Art Museum and the Boston Museum of Fine Arts. Mr. Townsend/Offered every other year

ARTH114 ANCIENT CITIES AND SANCTUARIES

Introduces the great urban and religious centers of the ancient world. The course examines the concept of the city as it first evolved in the Near East and as it developed in classical Greece and Rome. The course emphasizes both the design and structure of urban spaces and the factors affecting town planning. Discusses ancient sanctuaries not only as areas of religious worship, but also as centers of cultural activity involving theater, art, athletics and politics. Cities and sanctuaries are viewed in their historical setting as part of the larger civilizations, which nurtured them. Mr. Townsend/ Offered every other year

ARTH124 Italian Art from Giotto to Botticelli/Lecture, Discussion

Examines one of the most crucial periods in Western art, the Early Renaissance in Italy. Investigates painting, sculpture and architecture in their cultural and historical contexts from the trecento (1300s) to the late quattrocento (1400s), with a focus on Tuscany and its flourishing capital, Florence. Explores the movement away from Byzantine and Gothic art toward a new, uniquely Italian style emphasizing humanity, realism and science. Assesses how humanist studies, republican politics, monastic reform and the emergence of a wealthy mercantile class affected artistic style and theory. Considers artists' growing self-awareness as professionals contributing to contemporary intellectual developments and the ideology of genius. Artists highlighted in this course include Giotto, Brunelleschi, Donatello, Ghiberti, Fra Angelico, Piero della Francesca and Botticelli. Field trips to area museums. Mr. Bailey/Offered every other year

ARTH125 Art in the Age of Michelangelo/Lecture, Discussion

Focuses on the art of the 1500s in Italy, an era comprising the High Renaissance and Mannerism, perhaps the single most influential period in Western art after classical times. Investigates painting, sculpture and architecture in the major Italian cultural centers of Florence, Rome, Milan, Parma, Mantua and Venice. Considers questions of style, influence, patronage, art theory and scholarly and religious developments. Highlights the work of Michelangelo, including the recently restored Sistine Chapel frescoes, the Medici Tombs, the David and the Pietà. Also considers the work of Leonardo da Vinci, Raphael, Correggio, Giorgione and Titian, and their relationship to Michelangelo and his legacy. Looks at the rise of papal Rome and the building of St. Peter's basilica and the Vatican palaces. Mr. Bailey/ Offered every other year

ARTH131 Baroque Art in the Age of Bernini/Lecture, Discussion

Considers Italian art and architecture from around 1580 to 1680, the age known as the Baroque. An era of astonishing artistic activity, it was marked by lavish patronage by popes, cardinals and princes, centering on the cosmopolitan capital of Rome. This period was characterized by fundamental changes in society, including the birth of the Catholic church as a concept, new and revolutionary scientific discoveries, a new global awareness and the growth of political absolutism. Explores how these developments informed the style, iconography and patronage of art. Highlights Italian artists Caravaggio, Bernini, Borromini and Pietro da Cortona, as well as foreigners working in Italy such as Poussin and Claude Lorrain. Topics considered include the rise of landscape painting, still life and genre painting, as well as the concept of the Baroque unity of the arts. Field trips to area museums. Mr. Bailey/Offered every other year

ARTH140 Modern Art: 19th Century/Lecture, Discussion

Examines neoclassicism, romanticism, realism and impressionism. Studies the development of landscape painting in England and France, in relation to the rise of urbanization and industrialization, and the origins of an "avant-garde." Ms. Wilson/Offered every other year

ARTH141 Impressionism/Lecture, Discussion

Traces the development of impressionism over three decades: from the early works of Manet to the last Impressionist Exhibition in 1886. We examine in great depth both the stylistic development of individual artists—Manet, Monet, Renoir, Degas, Cezanne, Cassatt and Morisot—and the intense cross-fertilization of ideas between and among these artists. In addition, the course examines the academic paintings of the Jonas and Susan Clark Collection to illustrate what kind of art the impressionists were reacting against as well as the very art that was popular when impressionism failed to win critical acceptance. Ms. Wilson/Offered every other year

ARTH142 MODERNISM/LECTURE, DISCUSSION

Begins in 1886, the year in which the 20th century arrived. After a brief survey of post impressionism, we trace the blossoming of the modern imagination in Fauvism, Cubism, German expressionism, Dadaism and surrealism. Ms. Wilson/Offered every other year

ARTH143 ART FROM 1945 TO 1965/LECTURE, DISCUSSION

Surveys the major movements of contemporary American and European art, including abstract expressionism, pop art and earth art. Explores the increasing importance of the commercial environment, popular culture and technology in the art of the sixties. Ms. Wilson/Offered every other year

ARTH144 ART SINCE 1965

This course will survey contemporary art and the philosophical debates, which have informed it from a transnational perspective. While artists in the late '60s and '70s seemed to lay out many of the creative possibilities that artists continue to work with today. Recent artists have taken conceptualism, earthworks, site-specific art, body art, performance art and installation art in unanticipated directions. Photography and the newer technologies of video and digital imaging have had a greater presence too, particularly in the return of storytelling staged as elaborate fictions and self-fabulations, which resist neat closures of meaning. But painting and sculpture continue to be reinvented in bold new ways by each generation as well, despite persistent announcements of their imminent demise. Ms. Wilson/Offered every other year.

ARTH150 METHODOLOGY AND HISTORIOGRAPHY/LECTURE, DISCUSSION

This course is designed as an introduction to the various interpretative strategies used in the analysis of visual imagery, as well as the principles underlying the construction of art history as a discipline. Over the course of the semester, we will examine in detail methodological approaches such as formalism, iconography, Marxism, feminism, psychoanalysis and semiotics, not only in theory, but also in practice. We will also analyze the ways in which art history and aesthetics have been reconfigured and reformulated since its beginnings, in part under the impact of such methodologies. Ms. Wilson/Offered every other year

ARTH155 ART OF AFRICA, OCEANIA AND SOUTHWESTERN NATIVE AMERICA/LECTURE, DISCUSSION

Focuses on the art of the Yoruba of southwestern Nigeria, the Northwest Coast Native Americans and New Guinea, and considers the art forms, cultural settings and distinctive aesthetic in non-Western culture. Students will be expected to make aesthetic and stylistic judgments concerning selected original material. Staff/Offered every third term

ARTH156 ARTS OF BLACK AFRICA/LECTURE, DISCUSSION

Introduces art in the Western Sudan and Guinea Coast, the Niger Delta and Equatorial Forest, the Southern Savanna and southern and east African fringe. Emphasizes formal, conceptual and historical links between the cultures and art forms. Staff/Offered every third term

ARTH157 THE ARTS OF NORTH AMERICAN NATIVE PEOPLES/LECTURE, DISCUSSION

Examines the arts of the native peoples of North America, i.e., the arts of Woodland, Southeastern United States, Plains, Pueblo, Navajo, California and Northwest Coast Indian groups as well as that of Alaskan and Canadian Eskimos. Studies the traditions from the contact period (1500-1900) and precontact traditions known from the archaeological record. Staff/Offered every third term

ARTH159 LATIN-AMERICAN ART/LECTURE, DISCUSSION

Surveys the art and architecture of Latin America, ranging from Argentina to the United States, from the pre-Columbian period to the present. Begins with an exploration of the art of Mesoamerica and the Andes before the arrival of the Europeans, including the Maya, Olmecs, Aztecs and Inca. Explores the cultural convergence that resulted from the conquest in the 16th century, focusing on the role of Amerindian artists and traditions in the formation of early Colonial culture. Traces the development of the colonial arts, considering the role of civil and religious patronage, the rise of the art guilds, the international makeup of European cultures in the Americas and the relationship with the arts of Spain and Portugal. Considers the rise of nationalism in the 17th and 18th centuries and its effect on the arts, including the revival of Amerindian forms by the independence movement in regions that would later become Peru and Mexico. Explores the development of the arts from independence from Spain and Portugal in the early 19th century to the present, including a consideration of Chicano art in the United States. Field trips to area museums. Mr. Bailey/Offered every other year

ARTH160 THE ARTS OF ASIA/LECTURE, DISCUSSION

The 21st century has been called the "Asian Century" in anticipation of the leading role that Asia will play in the world's economic, political and cultural life. This course journeys through the history of the art and architecture of the most important civilizations in the Far East: China, Japan and Korea. Begins with China, whose arts tradition developed in isolation for over a millennium before exerting a profound influence on the nascent visual-arts cultures of Japan and Korea about 2,000 years ago. Explores how those two regions developed unique art forms that were repeatedly still affected by new waves of influence from China. Considers ancient bronzes, scroll and screen painting, religious sculpture, ceramics and decorative arts and architecture. Examines the function of these arts in society; the relationship between art and the great religions and philosophies of Daoism, Shinto, Confucianism and Buddhism (especially Chan or Zen Buddhism); the diversity of art patronage (emperors, warlords, monks and literati); and the relationship of art to the past. Field trips to area museums. Mr. Bailey/Offered every other year

ARTH161 THE ARTS OF ISLAM/LECTURE, DISCUSSION

Islamic peoples make up one third of the world's population, historically embracing regions as diverse as Spain, North Africa, the Middle East, India and Central Asia. Their culture is dynamic and diverse, and intimately related to neighboring civilizations in Europe, the Far East and Sub-Saharan Africa. Examines the art and architecture of Islam from the lifetime of the Prophet Muhammad (d. 632) to the present. Considers the development of the mosque and madrasa (religious college), miniature and mural painting, ceramics, ivory, metalwork, textiles and other arts. Explores the religious disinclination toward figural art and the growth of the "arabesque," or geometrical/floral patterns. Also examines the flourishing figural tradition that existed in nonreligious art. Monuments considered include the Alhambra in Granada, the Great Mosque of Damascus, the Dome of the Rock in Jerusalem and the Taj Mahal. Field trips to area museums. Mr. Bailey/Offered every other year

ARTH215 THE TEMPLE BUILDERS: ARCHITECTURE IN ANCIENT GREECE

Traces the evolution of monumental architecture in Greece from its origins in the Geometric period through its development in Archaic, Classical and Hellenistic times. Emphasizes the integration of craftsmanship, or techne, with elements of design in the Doric, Ionic and Corinthian orders. Discusses the relationship between architect and patron, the social role of architecture and its political impact, as well as the problems of modern investigation and reconstruction of ancient buildings. Mr. Townsend/Offered periodically

ARTH216 ARCHITECTURE AND DEMOCRACY/SEMINAR

This seminar will explore the relationship between the built environment and civic ideology in ancient Athens and 20th-century America. "Built environment" refers to structures in, through and around which a society functions and includes both private and public buildings and spaces. "Civic ideology" means

ideas that embody the collective beliefs and aspirations of the citizen body. In particular we will be interested in the relationship between the individual citizen and the state in ancient Athens and 20th-century United States and the means by which architecture acts to construct that relationship. Area field trips.
Mr. Townsend/Offered every other year

ARTH218 ART IN THE AGE OF ALEXANDER THE GREAT/SEMINAR

By his death in 323 B.C., at age 33, Alexander the Great had conquered most of the known world, his empire stretching from Greece to the Indus River Valley of India. In the process, he transformed this region into a polyglot, multicultural mix that has been compared to the global village in which we live today. This course examines the life and times of Alexander and his followers through the record of the material culture they left behind: architecture, sculpture, painting, gold, coins, jewelry and everyday artifacts. It specifically examines how culture is shaped by such material goods and uses an historical perspective to gain insight to the ever-changing profile of our society today. Trips to area museums. Mr. Townsend/Offered every other year

ARTH219 SPECIAL TOPICS: ANCIENT ART

Introduces specific issues and approaches in the study of ancient art. The course develops the student's research, oral presentation and writing skills through intensive study that is not possible in a survey course. While the seminar is designed for majors, qualified students from other disciplines are welcome. Course may be taken for credit more than once.
Mr. Townsend/Offered periodically

ARTH230 CARAVAGGIO/SEMINAR

Focuses on the work of one of the best known artists of any period, the painter Michelangelo Merisi or Caravaggio (1573-1610). Although he died a young man in 1610, he is often considered the most important painter of the 17th century. Explores Caravaggio's intense naturalism and the controversy it caused, his sense of drama and supernatural light and the role of his personality in works of art. Surveys his life in Rome, Naples, Malta and Sicily, considering his religious paintings, genre scenes and still lives. Considers the contradictory aspects of his character: his sexual ambivalence, his criminal violence and his intense spiritual devotion. Explores his artistic legacy in Italy and abroad. Readings include art-historical scholarship, history and original documents from the period. Field trips to area museums. Mr. Bailey/Offered periodically

ARTH232 CONVERGING CULTURES IN THE AGE OF DISCOVERY/SEMINAR

A critical assessment of the notion of hybrid art, focusing on the period of European discovery of non-European civilizations from the 16th through 18th centuries. Explores the impact of European Renaissance and Baroque art in a global context, including the Far East, Southeast Asia, India and the Americas. This age of global encounter involved intimate contact between the widest spectrum of peoples, representing different races and religions, as well as political, social, economic and cultural systems. Considers the role of missionaries, merchants and colonial powers in bringing European art to the non-European world, and the differing degrees of contact/conquest that existed between them. Primary focus is on the reaction of non-European cultures such as the Chinese and Nahua (Aztecs) to the new styles and iconographies from Europe, and the perpetuation of indigenous symbols, styles and ideas in the art produced after contact with Europeans. Evaluates the new art styles that were developed as the cultures began to merge, and questions whether transcendent styles or aesthetics emerge from the prolonged interaction of cultures. Mr. Bailey/Offered periodically

ARTH233 TROPICAL BAROQUE: THE ARTS OF COLONIAL LATIN AMERICA/SEMINAR

Tropical Baroque will be the first seminar devoted to the Renaissance and Baroque art and architecture of Colonial Latin America

(1492-1820), an arts tradition of greater richness and diversity than many in Europe itself. It will include not only Spanish America, including New Spain (Mexico, New Mexico and California), the Andean region, the Caribbean, Brazil and the Southern Cone (Argentina, Chile, Paraguay and Uruguay), but also the former Portuguese territories in Brazil. The course will consider architecture, including palaces and villas, cathedrals and churches, and fortresses and public spaces. It will also examine painting and sculpture, both religious and secular, as well as the so-called minor arts such as furniture, metalwork, textiles and ceramics, which have received much attention in recent scholarship. The field of Colonial Latin-American art is enjoying a renaissance in recent years. The people and societies who produced and used this art and architecture came from the widest spectrum of backgrounds and walks of life. They included Amerindians, Africans, Asians and mestizos, as well as Europeans from places as varied as Spain, Italy and Bohemia. Mirroring the incredible diversity of Latin America's natural landscapes, colonial art and architecture blended styles and techniques from Aztec, Inca and Guaraní civilizations with those from Europe, North Africa and the Far East to produce works of unprecedented creativity and originality. Mr. Bailey/ Offered periodically

ARTH239 SPECIAL TOPICS: RENAISSANCE AND BAROQUE ART/SEMINAR

Introduces specific problems in Renaissance and Baroque art and focuses on student research, oral presentation and writing skills. Qualified students from other disciplines are welcome. Mr. Bailey/Offered periodically

ARTH248 GENDER, ART AND SOCIETY/SEMINAR AND PRACTICUM

Explores the social and cultural construction of femininity and masculinity and the ways in which these are expressed in art and popular culture. Ms. Wilson/Offered every other year

ARTH249 SPECIAL TOPICS: MODERN ART/ SEMINAR

Introduces specific topics in the study of modern art. Research and writing intensive. Qualified students from other disciplines are welcome. Ms. Wilson/Offered periodically

ARTH299 SEC. 1 DIRECTED READING

ARTH299 SEC. 2 DIRECTED RESEARCH

ARTH299 SEC. 3 DIRECTED WRITING

ARTH299 SEC. 4 FIELD PROJECT

ARTH299 SEC. 5 SPECIAL PROJECT

ARTH299 SEC. 6 SPECIAL TOPICS

ARTH299 SEC. 8 HONORS IN ART HISTORY: SENIOR YEAR

Qualified students who take Honors in Art History should identify an area of interest, select an appropriate adviser and apply for eligibility to the art-history faculty before the end of the junior year. The honors thesis is a year-long project, for which the student will take 299.1 Directed Reading or 299.2 Directed Research, in the fall of the senior year and 299.8 Honors in Art History, in the spring semester. A second reader, chosen by the student and the adviser, will participate in the final evaluation. Credit is given for course work completed, even if a student is not recommended for honors. Staff/Offered every year

ARTH299 SEC. 9 INTERNSHIP

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in Art History and Criticism. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See Ancient Civilization

CLAS111 Roman Art and Architecture

Program Faculty

Elli B. Crocker, M.F.A., *Program Director*
Sarah Buie, M.F.A.
Sarah Walker, Ph.D.

Part-Time Faculty

Frank Armstrong, B.J.
Valerie Claff, M.F.A.
Stephen DiRado, B.F.A.
Elaine Froehlich, B.F.A.
Jennifer Hilton, M.F.A.
Kirk Jalbert, B.S.
Timothy Murdock, M.F.A.
Fred Simon, B.S.
Jason Travers, M.F.A.
Cynthia Wilson, M.B.A.

Emeritus

Donald W. Krueger, M.F.A.

Program Overview

Studio art courses offer students an opportunity to engage in the study and practice of visual language. The learning of artistic methods and media is embedded in intellectual inquiry and critical analysis, so that engagement in studio art serves as a meaningful focus of a liberal-arts education. Art is seen as a means of communicating human experience; therefore students learn to "read" images and are encouraged to create their own visions and stories in images. Areas of specialization within studio include drawing, painting, graphic design, photography, printmaking, sculpture and video production, as well as interdisciplinary work within the major or between studio art and other academic disciplines. In addition to course offerings, students may participate in internships for credit on or off campus. There are also regular exhibitions of contemporary art on campus, course-related field trips to museums and galleries, and artist lectures. Opportunities for extracurricular involvement in artistic activity are available through the University Center's Craft Studio.

Major Requirements

The major normally consists of 14 courses: 11 studio courses and three art history courses. The western survey art history course (ARTH010) must be one of the three art history courses. ARTS100 and 102 are studio foundations designed to introduce students to the nature of visual language and the creative process while encouraging the development of visual expression. At least one of these courses is required of majors and is strongly recommended for nonmajors as preparation for additional work in studio art. In addition to these foundation courses, a number of other introductory level courses in various media (painting, sculpture, printmaking and graphic design) satisfy the aesthetic-perspective requirement. As the aesthetic perspective outlines, "artistic expression and the perception, analysis and evaluation of aesthetic form" in fundamental terms will be the focus of these classes. After exploring various media, students may choose to concentrate in one area and often seek out particular faculty members for personal mentoring. The studio courses, with the approval of the program adviser, may include courses in music, theater arts and screen studies as well as student initiated nontraditional experiences. If a student chooses to double major, eight studio art courses and two art history courses are required.

Capstone for Majors

All studio art majors will participate in a senior-year capstone course, ARTS234 Studio Topics, which will include an independent project. This course provides a thematic context for the making of art and examines current topics occupying the national imagination as well as timeless themes that artists continue to address. Students with a strong commitment to intensive study and departmental approval can elect to undertake an honors project, ARTS289 Senior Thesis, which follows ARTS234 and culminates in an exhibition of work in the Clark University gallery.

Individual studio space will be provided to senior art majors while enrolled in these courses.

Courses

ARTS025 EROS AND THANATOS/SEMINAR, DISCUSSION, PROJECTS

An interdisciplinary seminar exploring the nature of the life-energy we call eros and its relationship to thanatos, or death, with an emphasis on deepening our understanding of our relationship to the natural world. Permission required. Ms. Buie and Mr. Wright/ Offered in alternate years

ARTS100 VISUAL STUDIES: 2D DESIGN AND COLOR/STUDIO, LECTURE, DISCUSSION

Considers visual perception and visual problem-solving/figure-field relationships, two-dimensional pattern and form, and theory and dynamics of color. Each semester, section one (Basic Design) will be a project-based class exploring design elements and principles. Section two (Pathway of the Senses) will emphasize a more intuitive and sensory approach to design basics, exploring sound, poetry, landscape and memory as inspiration. Open to nonmajors. Fulfills the aesthetic perspective. Ms. Claff/Offered every year

ARTS102 VISUAL STUDIES: DRAWING/STUDIO, LECTURE, DISCUSSION

Addresses the mechanics and expressive potential of drawing. Traditional illusionistic drawing techniques will be combined with exercises which facilitate personal expression and subjective response. In exploring the relationship between seeing, thinking and making, the beginning student will acquire fundamental skills in image making and insight into the creative process in general. Each faculty member will bring his/her unique perspective and personal studio practices to bear in the teaching of this course. Fulfills the aesthetic perspective. Ms. Crocker, Ms. Walker, Mr. Travers/Offered every year

ARTS120 INTRODUCTION TO PHOTOGRAPHY/ STUDIO, LECTURE, DISCUSSION

Introduction to black-and-white photography emphasizing the zone system and including camera operation, developing, printing and finishing techniques. Students must have a variable setting 35 mm camera with a built-in or hand-held exposure meter and must provide their own film and paper. Open to nonmajors. Mr. DiRado, Mr. Armstrong, Mr. Jalbert/ Offered every semester

ARTS121 INTERMEDIATE PHOTOGRAPHY/STUDIO, LECTURE, DISCUSSION

Continues the refinement of photographic seeing through darkroom techniques, digital imaging and alternative processes. We will consider a broad spectrum of aesthetic, formal and conceptual issues in the field of fine-art photography, while students will be encouraged to develop a personal vision. Some reading and writing required, as is a field trip. Students will meet weekly for critiques and lectures, concluding the semester with a comprehensive portfolio. Open to nonmajors. Prerequisite: ARTS120 or acceptable portfolio with instructor permission. Mr. DiRado, Staff/Offered every year

ARTS124 INTRODUCTION TO GRAPHIC DESIGN/ STUDIO, LECTURE, DISCUSSION

Introduction to the language, process and potential of graphic design as communication. Exercises and applied problems emphasize the relationship between form and meaning, typography, image making and conceptual development. Fulfills the aesthetic perspective. Ms. Buie and Ms. Wilson/Offered every year

ARTS125 GRAPHIC DESIGN PROJECTS/STUDIO, LECTURE, DISCUSSION

Intermediate-level projects in graphic design, with reference to particular design media such as books, identity, maps, exhibit design, Web sites, etc. Emphasis on exploring conceptual development and the problem-solving process. (Knowledge of Mac-based page layout programs is helpful, but not required.) Prerequisite ARTS124 or permission of the instructor. Ms. Wilson/Offered every year

ARTS128 DRAWING: SENSE OF PLACE

Students will engage the environment of Worcester by drawing on site at a variety of locations, from abandoned factories to Victorian parks, a littered rail bed to a wooded Quaker cemetery. By actively looking, we will forge a connection to this city, while recognizing other relationships to place—including the archetypal places we carry or inhabit within ourselves. The emphasis will be on learning how to see where we are and to be more fully aware of how this relationship to place defines us. Globalization, Internet intimacy, easy mobility and politics may all influence our understanding and feelings about place, but there is perhaps nothing so immediate and illuminating as the act of simply perceiving and translating the world around us. Artists who have referenced or manipulated "place" in their work will also be studied. Fulfills the aesthetic perspective. Ms. Crocker/Offered periodically

ARTS129 DRAWING: THE BODY/STUDIO, LECTURE, DISCUSSION

Focuses on the human form through various drawing methods, with analysis of the structure and anatomy of the body as well as exploration of the expressive potential and symbolic associations of the human figure. Ms. Crocker/ Offered every year

ARTS132 PAINTING I/STUDIO, LECTURE, DISCUSSION

Seeing and Believing/Ms.Crocker

Emphasis on representational painting strategies. Introduces the fundamentals of craft and explores the synthetic possibilities of paint, while discussing the conceptual basis for this medium ("Why paint?"). Focuses on material—both the materials employed by the painter, and the materials the painter simulates. Painting as a vehicle for thinking and communication will be stressed.

Self Made Worlds/Ms. Walker

Emphasis on constructing alternative realities. The painted image has been with us since the first handprint appeared on a cave wall. It remains an intimate and powerful index of an individual's quest for self-expression, and acts as a mirror of culture's changing image of itself. The basic toolbox of painting techniques will be explored along with an introduction to painters and painting concerns from the past through to the contemporary moment.

The emphasis of this course will shift depending on the professor. ARTS102 Visual Studies: Drawing or its equivalent is highly recommended. Fulfills the aesthetic perspective. Offered every year

ARTS133 PAINTING II/STUDIO, LECTURE, DISCUSSION

Beyond the Surface/Ms. Crocker

Emphasis on representational painting, but we will also strive to see beyond the appearance of things. This course will continue an exploration of painting techniques including more experimental media and approaches to the depiction of form and space on a two-dimensional surface. The game of illusion in trompe l'oeil will challenge the student as will the metaphysics of apprehending the physical world. Can the invisible be made visible?

States of Being /Ms. Walker

After a basic introduction to painting, one can experience more elaborate and personal directions within the medium. Ms Walker will look at alternative notions of space and states of being such as micro/macro, dream and psychological states, as well as cyberspace.

Painting II again taught from varying perspectives based on the studio work of each professor. ARTS102 and 132 recommended. Offered every year.

ARTS136 INTRODUCTION TO SCULPTURE/STUDIO, LECTURE, DISCUSSION

Introduces the modes of three-dimensional creation through a variety of traditional and contemporary materials and concepts. Alternating emphasis on sculptural objects, the human figure and issues of architectural/environmental expression. Open to nonmajors. Fulfills the aesthetic perspective. Mr. Murdock/Offered every year

ARTS137 SCULPTURE PROJECTS/STUDIO, LECTURE, DISCUSSION

Intermediate-level course leading to the development of personal direction and expression in three-dimensional form. Open to nonmajors. ARTS136 recommended. Mr. Murdock/ Offered ever year

ARTS158 PRINTMAKING I/STUDIO, LECTURE, DISCUSSION

Introduces the techniques and aesthetic of intaglio printing—primarily hard and soft ground etching methods, embossment and aquatint—on metal plates. The course may include methods of engraving, drypoint and collagraph. Open to nonmajors. Fulfills the aesthetic perspective. Ms. Hilton/Offered every year

ARTS161 PRINTMAKING II/STUDIO, LECTURE, DISCUSSION

Introduces the techniques and aesthetic of monotype printing. Ms. Hilton/Open to all students/Offered every year

ARTS162 EXPLORING THE NATURAL WORLD: SEEDING ARTISTIC PROCESS WITH DRAWING, MONOTYPE AND MIXED MEDIA

This class explores the natural world as visual model and studies organic process as a metaphor for artistic process. With close observation of Nature's forms and structures, students sharpen their eyes and experiment with different field-drawing techniques. Numerous drawing expeditions produce a collection of images to use as seeds for finished drawings and prints. Students are encouraged to experiment with a variety of materials and create an individual final project in one or more of the media covered. Prerequisite: one of the following: ARTS100, 102, 128, 129 or instructor permission. Ms. Claff/Offered every year

ARTS170 STORYTELLING THROUGH VIDEO: DOCUMENTARY AND DRAMATIC PRODUCTION/ STUDIO, LECTURE, DISCUSSION

Students in this class will produce one or two "storytelling" videos. Students may work in either the documentary or dramatic genre, and may work individually or collaboratively on each project. All preproduction, production and postproduction work will be done outside of class (including preparation of scripts or treatments, shooting, separate sound or archival recording, if necessary, and editing). In addition to production work, students will also keep a journal in which they will record insights they derive from the filmmaking or film viewing related to this course.
Prerequisite: ARTS107 or instructor permission. Mr. Simon/Offered every year

ARTS174 COLLAGE AND MIXED MEDIA: FROM HIGH TO LOW/STUDIO, LECTURE, DISCUSSION

This course offers an exploration of the ways materials and ideas can be transformed using approaches in both high and low technologies. By looking closely at how artists of the 20th century, and especially of the last few years, have made dynamic artwork from tools, methods and materials as diverse as trash, the computer, stencils, projection, layering processes, make-up and food, students will become familiar with current movements, directions and attitudes in art. This course will build on already existing studio-art skills and propel one to think and create more expansively using a larger toolbox. Ms. Walker/Offered periodically

ARTS200 PHOTOGRAPHY PROJECTS/STUDIO, LECTURE, DISCUSSION

Continues the study of the techniques and aesthetics of black-and-white photography. Students have the opportunity to pursue individual photographic projects in the size and format of their choice. Open to nonmajors. Prerequisite: ARTS120 and/or 121.
Mr. DiRado, Staff/Offered every year

ARTS204 SACRED SPACE/LECTURE, DISCUSSION, PROJECTS

Explores traditional and contemporary experiences of the sacred in spatial terms—through study of spatial and natural archetypes (i.e., mandala, threshold, cave, mountain); geometric harmonies in nature, art and architecture; sacred and secular architectural forms (temple, stupa, shrine, indigenous village architecture);

geomancy or the relationship between built and natural environments; and ancient and contemporary expressions of the natural world as Gaia, manitou or sacred geography.
Ms. Buie/Offered every year

ARTS208 TYPOGRAPHY

Study of the informational and expressive dimensions of typographical language. The history and technology of type is considered, with an opportunity to handset metal type as well as do extensive work on the computer. Applications to a variety of problems, including letterhead, poster and publication design. Prerequisites ARTS124 and/or 125, or permission of instructor. Ms. Buie/Offered every year

ARTS209 INTRODUCTION TO INTERACTIVE DESIGN

Explores the basic principles of interactive design and development for the computer screen and the Web in general, through lectures, critiques, workshops and assignments.
Ms. Froehlich/Offered every year

ARTS234 STUDIO TOPICS/CAPSTONE, CRITIQUE, DISCUSSION, PROJECTS

Students will create significant individual works within a peer group framed by contemporary topics that vary each fall. This interdisciplinary course is structured as a seminar and requires extensive student participation in discussions, as well as independent creative work in a chosen medium. Topics will revolve around both timeless and highly contemporary issues confronting the artist in the making of his/her work. Will involve readings and some writing. Each student will have 24-hour access to a studio in the senior studio complex. This course fulfills the requirement for a capstone experience in studio art, and is the required preliminary course for Senior Honors Thesis in the spring semester. Majors only. Ms. Buie, Ms. Crocker, Ms. Walker/Offered every year

ARTS250 PHOTOGRAPHY STUDIO

Advanced, professionally oriented, individual photographic study. May be taken for credit more than once. Prerequisite: appropriate intermediate and advanced photography courses and instructor permission. Mr. DiRado, Staff/Offered every year

ARTS254 GRAPHIC DESIGN STUDIO

Advanced applied problems involving the role of designers in professional practice, working with clients and organizations. Consideration of the role of and opportunities for design in meeting communication needs. Prerequisites ARTS124 and/or 125, or permission of the instructor. Ms. Buie/Offered every year

ARTS258 PRINTMAKING WORKSHOP/STUDIO, DISCUSSION

Students will refine technical ability in printmaking, sharpen critical-thinking abilities and develop a personal iconography. Independent work and thematic progression is encouraged. May be taken for credit more than once. Prerequisite: appropriate beginning/intermediate courses or instructor permission.
Ms. Hilton/Offered every year

ARTS266 SCULPTURE STUDIO

Professionally oriented, individual study of sculpture and spatial and three-dimensional design. May be taken for credit more than once. Prerequisite: appropriate sculpture experience and instructor permission. Mr. Murdock/ Offered periodically

ARTS270 PRINTMAKING: ARTIST BOOKS/STUDIO, DISCUSSION

Professionally oriented, individual study in printmaking. May be taken for credit more than once. Prerequisite: appropriate printmaking experience or instructor permission.
Ms. Hilton/Offered every year

ARTS278 VIDEO PRODUCTION STUDIO

Advanced projects in video production. May be taken for credit more than once. Prerequisite: appropriate intermediate-level video production courses and instructor permission. Mr. Simon/Offered every year

ARTS280 SENIOR STUDIO
Advanced, independent work under faculty supervision, in one of the studio media. May be taken for credit more than once. Prerequisite: appropriate advanced courses and faculty sponsorship. Staff/Offered every year

ARTS289 SENIOR THESIS
Honors program for studio art majors in any concentration. Working independently, but in close consultation with the instructor and interaction with the class peer group, the student will prepare a cohesive and mature body of work to be presented in a group exhibition in the University Gallery and to a faculty committee with oral and written support. This work should demonstrate original thinking and a high level of technical mastery. Prerequisite: ARTS234 or instructor permission.
Ms. Crocker, Ms. Walker/Offered every year

ARTS299 SEC. 4 FIELD PROJECT

ARTS299 SEC. 5 SPECIAL PROJECT

ARTS299 SEC. 6 SPECIAL TOPICS

ARTS299 SEC. 9 INTERNSHIP

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in Studio Art. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See Screen Studies
SCRN107 Introduction to Video Production
SCRN171 Storytelling through Video
SCRN214 Social and Cultural Issue Documentary

See Theater Arts
TA120 Technical Theater
TA123 Design for Performance

MUSIC

Program Faculty

Benjamin Korstvedt, Ph.D., *Program Director*
Matthew Malsky, Ph.D.
John McGinn, D.M.A.

Part-Time Faculty

James Allard
Donald Boothman, B.A
Richard Cain, M.Mus.
Jonathan Clark, M.Mus.
Peter Clemente, M.Mus.
Deborah Cole
Maria Ferrante, B.A.
James Fidlon, M.Mus.
Katherine FitzGibbon, M.Mus.
Susanne Friedrich
Joseph Halko
Malcolm Halliday, M.Mus.
Bruce Hopkins, M.Mus.
Kallin Johnson, M.Mus.
Martin Kelly
Boris Kogan, M.Mus.
Tracy Kraus, M.Mus.
Sima Kustanovich, M.Mus.
Sally Merriman, B.Mus.
Timothy McCall, B.Mus.
Steve Mossberg, B.A.
Richard A. Odgren, B.Mus.
Robert Schulz, M.Mus.
Peter Sulski, B.Mus.
Paul Surapine, B.Mus.
Douglas Weeks, M.Mus.

Adjunct Faculty

Hartmut Kaiser, Ph.D.

Emeritus

Gerald Castonguay, Ph.D.
Wesley M. Fuller, M.Mus.

Program Overview

The program offers a major and a minor, as well as courses and activities for the nonmajor. Courses are designed to teach students to listen to music intelligently, develop musical perception, master basic skills of music and apply them creatively, and acquaint students with representative works from various periods of music history. The study of music can open new perspectives on many aspects of culture and society and the program stresses the advantages of combining professional musical development with the humanistic breadth offered by a strong liberal education.

Courses are open to majors and nonmajors, and assignments are designed to suit the different goals and backgrounds of the students in each category.

Major Requirements

Fourteen courses are required for the music major:

1. Theory: MUSC121, 122, 223, 224 (includes aural/keyboard skills labs)
2. Music History: MUSC101, 102, 103
3. Private Study: MUSC180 (Two semesters—one unit each—of private instruction taken after completion of MUSC121)
4. Performing Groups: a minimum of four semesters in MUSC170, 171, 172, 173 or 174.
5. One seminar at the 200 level, either in history or in theory/composition.
6. Two music electives, selected from computer music, world music, history, and theory seminars, or two additional semesters of MUSC180. Students may also fulfill this requirement through tutorials, directed readings or special projects. For the non-honors major, the second elective—taken during the senior year—is a capstone project fulfilled by taking MUSC299 Directed Reading, MUSC299 Special Project or a second seminar at the 200 level.
7. Related areas: two courses, one within visual and performing arts in art history, studio art, theater arts or screen studies; and one outside visual and performing arts in areas that relate to the major. For example, a major in the music-history track focusing on French music of the late 19th and early 20th centuries could select a course dealing with the French language, French literature, European history or cultural theory.
8. Successful completion of skills labs (Aural Skills I and II, Keyboard Skills I and II), which are taken concurrently with theory and performance classes.

The four semesters (two required, two optional) of private-lesson fees for the major are covered by regular-tuition payment.

Music Honors

Admission to the honors program is by approval of the music faculty. Students may elect to pursue one of five different honors tracks: history, theory, composition, performance or music technology. Students apply to the honors program in history, theory, composition or music technology at the beginning of the junior year. Students must apply to the honors program in performance at the beginning of the freshman year. Prospective majors who wish to pursue honors in performance must request an audition and assessment of their potential regarding the honors performance track at the end of their first year. Formal admission into the honors performance track begins at the start of the sophomore year.

Honors in History, Theory, Composition or Music Technology

The 14 courses required for the music major, plus a project (a total of 15 courses) are required. The honors student will replace the two music electives of the music major (item six of the requirements) with study in a special area through either seminars or directed studies. These two special electives lead into the capstone project for the honors program (MUSC299), where the student will develop a thesis in history or theory, an extended composition or applications in music and technology.

Honors in Performance

The 14 courses required for the music major, plus two additional semesters of private study, and a senior capstone project culminating in a recital (a total of 17 courses) are required. The honors student will replace the two music electives of the music major (item six of the requirements) with two semesters of private lessons for credit (MUSC180). Two semesters of MUSC280 (for a total of six semesters of private study) culminate in a full recital and a companion capstone project (MUSC290) dealing with the stylistic analysis of the music to be performed in the recital. At least four appearances in student recitals, including a half recital during the junior year, precede the senior recital. The lesson fee in the honors performance track is covered by regular-tuition payment during the sophomore through senior years. It is strongly urged that MUSC121 and 122 be successfully completed by the end of the first year.

Music Minor

Requirements:

1. MUSC010 Introduction to Music
2. MUSC110 Rudiments of Music (or MUSC121 Theory I)
3. One course from the 100-level history or theory courses that would link to work in student's specific area of specialization (e.g., MUSC103 Twentieth Century, for the minor in music technology)
4. Three additional courses in one of five specific areas of music:

Minor in Performance

Three semesters of MUSC180. (For information on tuition coverage, see MUSC180). Students wishing to specialize in performance should arrange for an audition by contacting the program director. Audition will determine acceptance into the minor.

Minor in Music Technology

MUSC140 Computer Music
MUSC142 Interactive Music Programming Composition Studio/Seminar
MUSC270 Directed Studies in Computer Music

Minor in Jazz Studies (offered through the Worcester Consortium)

MUSC150 Jazz Theory
MUSC151 Jazz History
MUSC250 Tutorial in Jazz Composition

Minor in Music History

Any three of the following music-history courses and/or 200-level music-history seminars:

MUSC101 Medieval, Renaissance, Baroque
MUSC102 Classical and Romantic Periods
MUSC103 Twentieth Century
MUSC210 History Seminar

Minor in Music Theory

MUSC121 Theory I: Tonality 1
and any two of the following:
MUSC122 Theory II: Tonality 2
MUSC223 Theory III: Counterpoint
MUSC224 Theory IV: 20th-Century Practice

Nonmajors

All of the courses, seminars, and activities in the music program—with the exception of senior tutorials (MUSC230, 240, 250, 260)—are open to qualified nonmajors. Students who have a strong interest in music but whose major lies in another discipline can declare a minor in music. The music minor centers on a core of studies in one of five specific areas.

Performing Organizations

Nonmajors and majors may audition for a variety of organizations, which rehearse regularly and perform several yearly concerts. These groups include the Clark Concert Choir and Chamber Chorus, Instrumental Chamber Ensembles, Clark Concert Band and the Jazz Workshop Ensembles.

Private Lessons

Private lessons for nonmajors and majors are offered with or without course credit in several areas. See MUSC180 Private Instruction for Instruments and Voice (for credit for majors and minors) and MUSC018 Private Instruction for Instruments and Voice (noncredit).

Preprofessional Programs

Students interested in such professions as music therapy, multimedia, concert management, ethnomusicology, or music education may combine music courses with appropriate courses from other disciplines to create an individually designed major. The requirements for such preprofessional programs are jointly determined by the student and an advisory committee made up of one music faculty member and two faculty members from other disciplines.

Although the music program does not offer specific courses in music education, music majors interested in music education may take courses in the music curriculum, in conjunction with teaching courses through the education department. For more information, contact the education department.

*The following musical activities—MUSC170, MUSC171, MUSC172, MUSC173 and MUSC174—are open to all undergraduate and graduate students. Auditions are held during the first week of each semester. Although no credit is awarded, the transcript of any undergraduate who completes the assigned performance requirements will include a listing of the particular activity for which he or she was registered.

Courses

MUSC010 Introduction to Music/Lecture, Discussion

Designed for the nonmajor, the course expands the concept of the musical experience and develops discriminating listeners. The course includes an introduction to principles of rhythm, pitch, timbre (and their notations); the principles of structure; the aesthetics of music; specific forms including fugue, sonata form, variations; and selected historical styles. Staff/Offered every semester

MUSC011 Music as Culture/Lecture, Seminar

Students study and listen to the differences and likenesses in music from a wide variety of cultures and consider the ways in which music, ranging from classical art music to music for work and communal celebration, functions within a selected group of world cultures. Includes guest performers of ethnic music. Staff/Offered every year.

MUSC012 Pop Music in the USA/Lecture, Discussion

Beginning with what is (arguably) the start of the popular in American music, this course will examine Tin Pan Alley, Blues, Country, R&B, Swing, early Rock 'n Roll, Motown, the Folk Revival, the British Invasion, Psychedelic Rock, Progressive Rock, Punk, Disco and Heavy Metal, as well as some more recent music. The course will focus on understanding the stylistic and historical practices of this wide range of popular music. The principle perspective of the class will address popular music as an audible text as an artifact of, and contributor to, popular music culture. No previous musical experience (such as the ability to read or play music) is assumed. However, a willingness to listen to all of this music carefully and to engage a variety of theoretical approaches is presumed. Mr. Malsky/Offered periodically

MUSC016 Music in 20th-Century/First-Year Seminar

Music was one of the most vibrant and meaningful elements of 20th-century American culture. This seminar will cover major forms of American popular music, notably Blues, Jazz, the American popular song from Foster through Cole Porter to Dylan, rock and country music. Along with extensive listening work, the course will focus on exploring ways in which music was taken up by the cultural discussion of the times. Also at issue will be how music functioned as a social practice that negotiated basic tensions inherent to American society, especially those around race and the changing ways in which music has functioned within the culture industry. This course will be concerned primarily with discussion and explication of readings and music. Readings will be drawn from a range of music criticism and other writings about music. In addition, students will be involved in a series of projects including short papers, small-group studies and in-class presentations.

MUSC018/MUSC180/MUSC280 PRIVATE INSTRUCTION IN INSTRUMENTS

Areas offered include piano, jazz piano, voice, jazz vocal, clarinet, saxophone, flute, classical guitar, jazz guitar, violin, viola, French horn, trumpet, bassoon, trombone and low brass, cello, percussion, string bass and conducting. Lessons are taken for course credit. Students enrolled in MUSC180 meet weekly with an instructor, attend either aural or keyboard skills labs and participate in an ensemble. In areas not currently offered at Clark, the music program will find a qualified instructor. Award of credit in the off-campus study require special permission from the program director. No credit is awarded for off-campus study in those areas currently available at Clark. Prerequisites: for the minor, MUSC010 and either MUSC110 or MUSC121; Qualified students may begin lessons prior to or along with MUSC010 and either MUSC110 or MUSC121. Approved minors receive three semesters of lessons covered by tuition, majors receive two semesters of lessons (with options available with permission for one or two additional semesters covered by tuition); majors in the Honors Performance track receive six semesters of lessons covered by tuition. Specific details are available in the music program office. Staff/Offered every semester

MUSC101 MUSIC OF THE MEDIEVAL, RENAISSANCE AND BAROQUE PERIODS/LECTURE, DISCUSSION

An exploration of European music from the Middle Ages through the Baroque period or from the 10th century AD to ca. 1750. This grand slice of music history—more than seven centuries—encompasses a fascinating variety of music: Gregorian Chant, Medieval polyphony, the Renaissance Mass and Motet, the birth of opera, the rise of instrumental genres, and the culminating achievements of the High Baroque. Through a mix of listening, reading, discussion and various written assignments, the course explores how music evolved and participated in the many major cultural, historical and social transitions between the Middle Ages and the Age of Absolutism. Several final weeks of the semester are devoted to the greatest musical figure of the mid-18th century, Johann Sebastian Bach. Previous musical experience is helpful, but not required. Mr. Korstvedt/ Offered every year

MUSC102 MUSIC OF THE CLASSICAL AND ROMANTIC PERIODS/LECTURE, DISCUSSION

This course explores European music from the mid-18th century through the end of the 19th century. This era was in many ways a high point in the history of musical art and many of the greatest and most beloved composers were active during this time, including Haydn, Mozart, Beethoven, Schubert, Berlioz, Chopin, Verdi, Wagner, Brahms and Mahler. Through a mix of listening, reading, discussion and various written assignments, students will develop an understanding of representative works by these composers, build a sense of the social and cultural contexts in which they worked, as well as sharpen their aesthetic appreciation of this music. Previous musical experience is helpful, but not required. Mr. Korstvedt/Offered every year

MUSC103/MUSC108 20TH-CENTURY MUSIC/ LECTURE, DISCUSSION

Explores the abandonment of functional tonality after 1900 and its replacement with new musical systems, and the remarkable rejections and explorations, which characterize the musical world after 1945. Studies the varied styles and the spirit of experimentation that is particularly characteristic of the second half of the century is an important focus of the course. Staff, Mr. Malsky, Mr. McGinn/Offered every year

MUSC110 RUDIMENTS OF MUSIC/LECTURE

Fundamentals of music requiring no previous musical training. Students learn to understand, hear and write the basic elements of the pitch and rhythmic notation system. Skills gained enable students to pursue private instrumental or vocal instruction and to begin work in composing. Mr. McGinn, Mr. Malsky/Offered every year

MUSC121 THEORY I: TONALITY 1/LECTURE

Explores the system of tonal music commonly employed by composers of the 18th and early-19th centuries, as well as by composers of popular music today. This study, incorporating exercises, composition, analysis and performance, also examines the way students listen to music in general, thus leading to a deeper understanding of the musical process.
Mr. McGinn, Mr. Malsky/Offered every year

MUSC122 THEORY II: TONALITY 2/LECTURE

Extends the study of Western tonality to encompass more advanced techniques such as chromaticism and modulation. Culminates with late 19th-century chromaticism, which reveals both the extraordinary possibilities and ultimately the limitations of using the tonal system as an organizing force in music. Prerequisite: MUSC121. Mr. McGinn, Mr. Malsky/Offered every year

MUSC140 COMPUTER MUSIC STUDIO/LECTURE, DISCUSSION

The computer is, arguably, the most distinctively contemporary musical instrument. A project-based and historically grounded introduction to the computer as a musical tool, this course covers a variety of technical topics such as multitrack digital recording and mixing, the fundamentals of sound synthesis, and digital signal processing. A series of cumulative technical assignments through the semester lead to a large composition project. A variety of musical repertoires will be studied through recordings and readings. Permission of instructor required. Mr. Malsky/Offered every year

MUSC142 INTERACTIVE MUSIC PROGRAMMING AND COMPOSITION STUDIO/SEMINAR

Interactive music refers to a composition or improvisation in which software interprets live performances to produce music generated or modified by computers. This course will present both musical concepts and programming techniques for students to produce performable music compositions. Topics will include advanced digital sound synthesis, signal processing and interactive MIDI applications. Prerequisite: MUSC140 or permission of instructor. Mr. Malsky/Offered every year

MUSC150 JAZZ THEORY/LECTURE, TUTORIAL

Includes a study of the rhythmic/harmonic/melodic structures of jazz, the scalar basis of improvisation, and voicing practice as it pertains to scoring for small and large ensembles Prerequisite: MUSC110 or passing of placement examination in rudiments. Mr. Fidlon/Offered periodically by permission

MUSC151 JAZZ HISTORY/LECTURE, TUTORIAL

Studies the evolution of jazz style from its 19th-century beginnings to the present, including African roots, minstrels, ragtime, Dixieland, swing, bop, progressive, cool, free-form and third-stream. Requires a research paper and a final exam. Mr. Fidlon/Offered every year

MUSC160 SOUNDTRACKS/LECTURE

This class will focus attention on the soundtrack both through hands-on practicum experience in making soundtracks and by introducing students to analytic/interpretive methodologies that highlight music and sound in the cinematic experience. Some introductory experience in either music or screen is required. Additional lab time required for project/studio work and several evening screenings. Preprequisite: MUSC121 or 140 or ARTS167 or SCRN101. Mr. Malsky/Offered periodically

MUSC170* CLARK CONCERT CHOIR/REHEARSAL, PERFORMANCE

A chorus of 30 to 40 voices, the choir presents two major concerts each year on the Clark campus as well as in off-campus appearances. Mr. Staff/Offered every semester

MUSC171* CLARK CHAMBER CHORUS/REHEARSAL, PERFORMANCE

This is a small, specialized singing group chosen from the larger Clark Concert Choir by the conductor. Admission is by audition. Staff/Offered every semester

MUSC172* CONCERT BAND/REHEARSAL, PERFORMANCE

Concert Band consists of 25 members performing two major concerts a year. Staff/Offered every semester

MUSC173* CHAMBER MUSIC ENSEMBLES/ REHEARSAL, PERFORMANCE

The number of small ensembles is determined by the performing talent in a given semester. Standing ensembles include string, woodwind, mixed brass, jazz vocal. Admission is by audition. Staff/Offered every semester

MUSC174* JAZZ WORKSHOP AND COMBO/ REHEARSAL, PERFORMANCE

Includes ensemble performance practice with weekly rehearsals throughout the year. An audition is required. Mr. Fidlon/Offered every semester

MUSC200 NEW MEDIA THEORY AND PRACTICE

A seminar/production class designed to explore the ideas and techniques surrounding the simultaneous use of multiple digital media to create artistic work for CD-ROM, installation, Internet and performance. Examines the fields of computer music, hypertext, digital video and computer animation and graphics in order to provide impetus for experimentation with new integrated art forms. The theoretical writings of Benjamin, Landau, Altman, Negroponte and others will be the basis for the study of historical, cultural and social contexts. Prerequisites: MUSC141, SCRN207, ARTS209 or permission of instructor.
Mr. Malsky/Offered periodically

MUSC210 MUSIC HISTORY SEMINAR

The Music History Seminar takes up specific topics and themes in music history that open onto larger cultural contexts and interdisciplinary lines of inquiry. The seminar is based on active discussion and student research with a depth and a focus not possible in a survey course, and will develop the student's critical skills, as well as the ability to write and talk about music in meaningful ways. Seminar topics change each year. Recent topics have included "Music and Culture in Vienna, 1870-1914," "Richard Wagner: Music, Drama, and Meanings," and "Beethoven, Schubert and the Transformation of Music, 1800-1830." The course welcomes music majors and minors, as well as interested students from other disciplines. The seminar may be taken more than once for credit. MUSC102 and/or MUSC103 are recommended, but not required.
Mr. Korstvedt/Offered every year

MUSC220 THEORY/COMPOSITION SEMINAR

Rotating topics include composition, film music (Soundtracks), musical analysis, orchestration and contemporary performance practice. Prerequisites: MUSC121, 122, 223, 224.
Mr. McGinn, Mr. Malsky/Offered every year

MUSC223 THEORY III: COUNTERPOINT/LECTURE, TUTORIAL, LAB

For the advanced music student, studies the styles and procedures used by composers throughout the development of western art music as models for independent creative work. While emphasizing counterpoint as a procedure, students are expected to have a good background knowledge of music theory and history. Prerequisites: MUSC121, 122.
Mr. McGinn, Mr. Malsky/Offered every year

MUSC224 THEORY IV: 20TH-CENTURY PRACTICE/LECTURE, TUTORIAL

Analyzes compositional techniques of major 20th-century composers and uses them as a basis for composition and analysis assignments. Prerequisite: MUSC222 or instructor permission. Mr. Malsky, Mr. McGinn/Offered every year

MUSC230 SENIOR TUTORIAL IN MUSIC HISTORY

Develops work (e.g., a paper, composition or performance) in consultation with the instructor. For majors only. Prerequisite: instructor permission. Staff/Offered every semester.

MUSC240 SENIOR TUTORIAL IN COMPOSITION

Develops work (e.g., a paper, composition or performance) in consultation with the instructor. For majors only. Prerequisite: instructor permission. Mr. McGinn/Offered every semester

MUSC250 Tutorial in Jazz Composition
Student writes original scores for performance by a workshop ensemble. Prerequisite: MUSC151 and permission of program director. Mr. Fidlon/Offered periodically

MUSC260 Senior Tutorial in Theory
Student develops work (e.g., a paper, composition or performance) in consultation with the instructor. For majors only. Prerequisite: instructor permission. Mr. McGinn, Mr. Malsky/Offered every semester

MUSC290 Capstone Project

MUSC299 Sec. 1 Directed Reading

MUSC299 Sec. 2 Directed Research

MUSC299 Sec. 3 Directed Writing

MUSC299 Sec. 4 Field Project

MUSC299 Sec. 5 Special Project

MUSC299 Sec. 6 Special Topics

MUSC299 Sec. 7 Directed Study in Computer Music

MUSC299 Sec. 8 Honors

MUSC299 Sec. 9 Internship

SCREEN STUDIES

Program Faculty

Timothy Shary, Ph.D., *Program Director*
Marcia Butzel, Ph.D.

Adjunct Faculty

Marvin D'Lugo, Ph.D.
Walter Schatzberg, Ph.D.

Program Overview

Clark offers one of the few undergraduate programs in the nation that specializes in screen studies, which deals with arts and artifacts of the moving two-dimensional image, usually combined with sound. It is concerned, in other words, with the study of film, television, video and evolving forms of digital visual media. The program offers both a major and a minor and stresses the importance of a liberal-arts background, for the screen arts touch upon and are affected by all sectors of contemporary culture and society. Screen studies provides a core of basic and advanced knowledge of the screen arts and media while encouraging students to explore diverse connections and influences, ranging from the visual arts, drama, literature and aesthetics to sociology, psychology, history and economics.

Nonmajors take screen-studies courses to acquire knowledge that relates to their interests in other disciplines, to gain a better understanding of the roles film and television play in their everyday lives or to understand the importance of the screen media as cultural and artistic forms. Those considering careers in the screen arts or related areas usually major in screen studies. In addition to being of special benefit for those planning graduate study or a career in the communications fields, the major also may be of interest to those seeking a liberal-arts education that speaks directly to questions of contemporary life, culture and the arts. Students interested in film and video production may take the program's sequence of production courses and gain production experience through professional internships.

Major Requirements

Students majoring in screen studies enroll primarily in courses on the history, theory and criticism of film, broadcast television, and other forms of electronic media. Requirements include courses in screen studies and courses in a related area, which may be discipline-specific (such as history, English, a foreign language/culture) or interdisciplinary (such as communication studies). The coherence of the related area is determined by the student and his or her major adviser. The major consists of at least 13 courses, a minimum of 10 courses in screen studies (see item 1 of the requirements below) and at least three courses in a related area, with one of those three courses at the advanced level (see item 2 below). For a course to provide credit toward the major, a letter grade of C or better must be achieved.

Requirements:

1. Majors are required to take a minimum of 10 courses in screen studies. Of the 10 screen-studies courses, four are specifically required:
   SCRN010 Introduction to Screen Arts (to be taken as early as possible)
   SCRN107 Introduction to Video Production, or its equivalent
   SCRN114 Writing About Film: Critical Approaches
   SCRN121 International Film Art Movements

   In addition to these specific required courses, majors must complete:
   - At least one screen history course such as SCRN119 American Film From Its Origins Through WWII; SCRN120 American Film Since WWII; or SCRN122 History of American Broadcasting and Electronic Media.
   - One course in video production at a more advanced level than SCRN107, or another production course such as MUSC140, ARTS100, ARTS120, ARTS124, TA120 or TA212. (Students should choose the arts production course in consultation with their major adviser.)
   - One course on a national cinema such as SCRN246 Studies in Spanish Cinema; SCRN248 Studies in Latin American Cinema; or SCRN263 History of French Cinema.
   - One advanced topics course resulting in a major term paper, or advanced production project, chosen from SCRN230, 284, 288, or 299.5
   - Two additional elective screen-studies courses to bring course work to the 10 required screen-studies courses.
2. Majors must demonstrate competence in a related area pertinent to the student's particular emphasis in screen studies. Requirements for the related area may be met by: completing requirements for a double major or by completing three courses (chosen in consultation with the major adviser), which together form a coherent group. Suggested related areas are: Screen Arts Production; Foreign Language and Culture; or Politics, Society and the Audiovisual Media. One course in the related area must be at the 200 level.

Honors Program

Students with a strong interest and commitment to advanced study in the program and who have completed at least six screen-studies courses with at least a B+ average, may, with the program's approval, elect the honors sequence: one advanced topics capstone course and a one- or two-unit senior thesis. Students are expected to use the honors course to develop an extensive research project on some aspect of film history, criticism or theory selected with their major adviser. Students planning to go on to graduate work in screen studies are encouraged to apply for the honors sequence.

All students interested in the honors sequence must apply to the screen-studies program director in the second semester of the junior year.

Screen Studies Minor

Requirements:

SCRN010 Introduction to Screen Arts
SCRN107 Introduction to Video Production
One screen-history course selected from SCRN119, 120, 121 or 122
One course on a national cinema such as SPAN246, SPAN248 or SCRN263
SCRN114 Writing About Film: Critical Approaches
One 200-level elective in screen studies chosen in consultation with a program adviser

Internships, Study Abroad

As an elective, one unit of internship credit (299 Sec. 9 Internship) can be counted toward the major. In past years, students have held internships with local and regional media concerns, such as WCCA-TV in Worcester and

WHDH-TV in Boston, as well as independent production companies in New York and London. Students have also interned at a large, local archive of historic film posters and advertising. Majors have opportunities for study abroad, often by pursuing 1-2 units of academic course work and an internship during one semester. Clark's London Program has been the primary sponsor for study abroad in the major.

Nonmajors

All of the courses, seminars and activities in the screen-studies program are open to qualified nonmajors. Students who have a strong interest in screen studies but whose major lies in another discipline can declare a minor in screen studies. The minor consists of six courses.

Courses

SCRN010 INTRODUCTION TO SCREEN ARTS/LECTURE, DISCUSSION

Introduction to film and related screen media, with emphasis on critical thought and analysis. The course begins with attention to aspects of filmmaking activities—such as cinematography, editing and sound—then explores more contextual screen areas such as art film traditions, screen genres, auteur theory, gender and representation, etc. Students actively analyze films in detail to foster an understanding of screen styles and meanings. Fulfills prerequisites for advanced screen-studies courses.
Mr. Shary/Offered every semester

SCRN107 INTRODUCTION TO VIDEO PRODUCTION/STUDIO, LECTURE, DISCUSSION

Workshop in seeing and thinking in electronic imaging techniques and processes. Open to nonmajors. Mr. Simon/Offered every semester

SCRN114 WRITING ABOUT FILM/SEMINAR

Considers a variety of critical methods for the analysis and interpretation of film. The course considers several important kinds of writing about film, including journalistic film criticism and analysis based in film theory. Students actively practice all of these modes of writing to acquire the analytic skills used in upper-level courses. The major critical approaches or methodologies of film studies such as formalist criticism, genre criticism, auteur criticism and forms of ideological criticism are explored in coordination with weekly films.

SCRN119 AMERICAN FILM FROM ITS ORIGINS THROUGH WWII/LECTURE, DISCUSSION

The history of the emergence and entrenchment of the Hollywood studio production system and the consolidation of a style of filmmaking now described as the classical Hollywood cinema. Topics to be covered include: silent filmmaking; the emergence of the star system, feature-length narrative filmmaking and film genres; the disruption of the coming of sound; the impact of the Depression and two World Wars; and the start of Hollywood's golden era. Mr. Shary/Offered every other year

SCRN120 AMERICAN FILM SINCE WWII/LECTURE, DISCUSSION

The history of post-WWII American cinema is the story of an ongoing series of adjustments to (or developments within the context of) instability in postwar film business: film noir, 3-D, biblical epics, blockbusters, art film influences, "new blood" from TV and film schools, Black filmmaking, revisionist genre films, high-concept filmmaking, etc. Further complicating this process of adjustments, cinema was overlaid onto, and consequently influenced by, the political turmoil within American society in general: the "Red Scare," the Vietnam War, the emergence of a mass counterculture, the antiwar movement, Watergate, Reaganomics, the end of the Cold War and increasingly vocal demands by women and minorities for social equality (and media representation).
Mr. Shary/Offered every other year

SCRN121 INTERNATIONAL FILM ART MOVEMENTS/LECTURE, DISCUSSION

Broad survey designed to acquaint students with major foreign movements in cinema history. Includes readings on and screenings of examples selected from Italian silent epics, French Impressionism, German Expressionist and Weimar cinema, Soviet montage school, Soviet socialist realism, British documentary school, Nazi cinema, Italian neorealism, Japanese classical cinema and French New Wave. Ms. Butzel/Offered every year

SCRN122 History of American Broadcasting and Electronic Media/Lecture, Discussion

This course considers how broadcasting and electronic media have been developed over the past century. We will examine the technical achievements of the field as well as its social and aesthetic impacts from early electrical and wireless communication (telephone, radio) to mid-century inventions (television, satellites) and more recent innovations (cable, digital technology). We will sample a wide range of media productions, including early radio and TV shows, documentaries and current media phenomena. Students will do some of their own historical research on broadcasting to supplement the course material. Mr. Shary/Offered every other year

SCRN123 Factual Film and Television

An overview of film and television genres associated with factual and documentary filmmaking. A wide array of documentaries are used to examine sociocultural topics, such as art, gender, modernity and race. Focuses particularly on how certain stylistic means of filmmaking shape our understanding of subject matter and themes. Recent experiments with cinema, such as performativity, surrealism and reenactment —that blur the line between fiction and fact— will also be addressed. Staff/Offered every year.

SCRN130 Film Genre/Lecture, Discussion

Devoted to the study of the major storytelling formats into which much narrative filmmaking (especially that of the American cinema) may be categorized. The course considers theoretical perspectives, formal description, historical background and social implications of genres such as the western, gangster film, musical, melodrama, etc., and through this work enables students to engage in and experience the interpretive insights of this critical perspective on the cinema. This course is taught as a variable topic, and may be offered as either an overview of several film genres or as a course concentrating on intensive study of a particular genre. Staff/Offered every other year

SCRN140 Film Authors and Authorship/Lecture, Discussion

Examines the theory and practice of film authorship through a consideration of works by major American and international film authors. Studies historical development of the idea of film directors as authors in Europe and the United States. Emphasizes the impact of such theories on the study of various American figures, which may include Hawks, Ford, Hitchcock and Coppola, as well as international figures. Also examines the formation of film authorship in emerging cultural contexts, such as women's cinema and new national cinemas. Ms. Butzel/Offered every other year

SCRN171 Storytelling through Video: Documentary and Dramatic Production/Studio, Lecture, Discussion

Students will produce one or two "storytelling" videos. While they must create at least one individual work, they may choose to work collaboratively on a second project. There will be a strong emphasis on creating stories that explore experimental and innovative approaches and tell personal stories that transcend and cross traditional video storytelling genres of simple fiction and documentary. Preproduction, production and editing will be done outside of class. During class, students will view and critique their own videos as projects evolve, explore relevant production techniques and view and discuss professional films and videos that emphasize innovative approaches. They will also keep journals chronicling the evolution of their projects. Prerequisites are SCRN107 and competence in production and editing (a working knowledge of Final Cut Pro editing software is required). Mr. Simon/Offered every other year.

SCRN214 Social and Cultural Issue Documentary

An advanced course in video production in which students will design, produce and edit two documentaries about contemporary social or cultural issues. To take this course, students must be proficient in the fundamental skills of video production and have taken SCRN107 Introduction to Video Production. Students will be encouraged to make documentaries about issues they are exploring in their own lives or in other courses they are taking (e.g., the effects of advertising on women's body image; the invisible poor). All documentaries will be viewed and critiqued in class. Through discussion and viewing, students will explore both the art and craft of documentary filmmaking and will consider relevant styles and choices that the documentary filmmaker faces, such as objectivity, point of view, voice, and traditional vs. the cinema vérité approaches. All production and postproduction work will be done outside of class. Prerequisite: SCRN107 or permission. Mr. Simon/Offered every other year.

SCRN230 IMAGES OF YOUTH

This course examines the American youth film as a genre, one that contains certain images of its intended audience—teenagers—that reveal cultural attitudes toward adolescence as well as teens' fantasies about themselves. In some cases these images are stereotypical or extreme, misrepresenting the diverse range of teens who see these films, but in many instances these films uphold teenagers' ambitions, offering empowering and sympathetic portraits of the growing-up process. The course becomes an exploration of how a particular media industry, in this case Hollywood cinema, represents a certain population through developing, refining and upholding generic conventions in depictions of that population. Mr. Shary/ Offered every other year.

SCRN252 ASIAN CINEMAS/LECTURE, DISCUSSION

How different was/is the Asian cinema from the classical Hollywood cinema, which has dominated the world's commercial filmmaking as a model to be either imitated or resisted? The course addresses the issue of difference "from the outside" by engaging in the study of the history of various Asian film industries; identification of the characteristic storytelling formats of Asian cinema; formal analysis of the stylistic signatures of its master directors (such as Kurosawa, Ozu, Ray, Yimou, Woo); and study of western criticism's discourse on these national cinemas. Staff/Offered periodically

SCRN261 CRITICAL PERSPECTIVES ON TV CULTURE/LECTURE, DISCUSSION

Pursues fundamental questions about television through the complex mechanisms of contemporary criticism and popular culture. To understand how television functions, for instance, you must understand certain aspects of its mechanics, economics and politics. To understand what television means to people, we confront a matrix of even more varied human dimensions, which are more difficult to identify. How is television studied? How is meaning created through the audio/visual domain of television? How does that meaning come to be popular? What is at stake in the production and consumption of television? Mr. Shary, Staff/Offered every other year

SCRN263 HISTORY OF FRENCH CINEMA/ LECTURE, DISCUSSION

France has produced more than a century's worth of cinema that has defined film as an art form and as a mode of cultural production. Distinctive films can be found in every historical period, from the earliest "cinema of attractions" to art-house auteur dramas or popular genre films (comedies, polars and heritage films) on screens today. Of the major world cinemas, French cinema has also been most successfully nationalist of national cinemas. Since World War II, France has regularly subsidized its film industry, campaigned against Hollywood dominance in "the audiovisual trade" (during the 1993 GATT talks, for example) and politicized its filmmakers (as in the 1997 protests against government persecution of undocumented immigrants and minorities). Taught in English. Prerequisite: SCRN010 and 114, or permission. Ms. Butzel/Offered every other year

SCRN284 Film as Narration/Lecture, Discussion

Explores the relationship between storytelling and cinema, from the perspectives of filmmaking craft, critical analysis, film history, the psychology of the spectator and sociopolitical factors. Students acquire vocabulary and concepts to analyze fictional and factual narratives ranging from early-American shorts to contemporary international features. Some consideration will also be given to television series and to interactive digital media as narrative. Specific topics covered include: narrative and nonnarrative sources of films; literary and filmic versions of the detective story; D.W. Griffith and the development of the integrated narrative film; serials and series, sequels and remakes; "assertive" versus "invisible" modes of narration; oral cultural tradition and film. Prerequisite: SCRN010 and 114 or permission. Ms. Butzel/Offered every other year

SCRN288 Gender and Film/Variable Format

Explores the ways that gender is produced by the "social technologies" of film and video. Examines concepts of sexual difference (masculinity and femininity) and organizing representation, narrative and spectatorship in Hollywood and alternative cinemas, and in some television and video. Readings will be primarily theoretical and critical. Ms. Butzel, Mr. Shary/Offered every other year

SCRN299 Sec. 1 Directed Reading

SCRN299 Sec. 2 Directed Research

SCRN299 Sec. 3 Directed Writing

SCRN299 Sec. 4 Field Project

SCRN299 Sec. 5 Special Project

SCRN299 Sec. 6 Special Topics

SCRN299 Sec. 9 Internship

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in Screen Studies. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See Communication and Culture
COMM145 Do-It-Yourself Media

See English
ENG108 Intro to Screen Writing

See Foreign Languages
FREN159 Films of Jean Renoir
SPAN246 Studies in Spanish Cinema
SPAN248 Studies in Latin-American Cinema
SPAN249 Studies in Hispanic Cinema

See Music
MUSC160 Soundtracks

THEATER ARTS

Program Faculty

Raymond Munro, M.A.H., *Program Director*
Gino DiIorio, M.F.A.

Part-Time Faculty

Nadia S. Mahdi, M.A.
Christine Weinrobe
Catherine Quick Spingler, M.A.
Diane Hovenesian, B.A., C.A.T.
Jay Hovenesian, B.A., C.A.T.

Adjunct Faculty

Paul Burke, Ph.D.
Michael K. Spingler, Ph.D.
Virginia Vaughan, Ph.D.

Program Overview

At the core of the theater program is the strong belief that a liberal-arts education is inherently inseparable to the artist's process. This relationship provides a cornerstone for the practice and study of theater, as theater by its very nature is a multidisciplined art form. The theater program is designed to attain a balance between a strong liberal-arts education and intensive study in the student's chosen area of focus.

The program places a strong emphasis on performance as a teaching tool for students at many different levels of work. Each semester, the program presents professionally directed productions of classic and contemporary theater. There are also opportunities to act and direct in student-sponsored classes, workshops and productions. Theater productions are open to all Clark students. The program is designed to meet the needs of the major who may eventually wish to pursue a professional career in theater, as well as the nonmajor, who may simply want to gain a greater understanding of the play or the performance process.

The Center for Contemporary Performance is a scholarly community of directors, composers, playwrights, choreographers, film/video makers and critics devoted to the creation, development and publication of contemporary works of art. The center is designed to enhance the academic work of the University by organizing and focusing advanced learning through seminars and directed study in music, theater, film, design, literature and aesthetics. The center enables students and faculty to work with visiting artists and outside performance groups, thereby enriching their educational experience and the creative process. Advanced students are encouraged to develop creative and theoretical projects to take advantage of the critical evaluation and supervision available through the Center for Contemporary Performance.

The theater-arts major is designed to offer an interdisciplinary framework that serves as foundation for the student to enter their primary area of expertise. Once the basic course requirements have been fulfilled, there is a great deal of flexibility in developing a program well suited to the individual needs and interests of the student. The faculty takes a proactive role in the design of this program, preparing the student to enter their chosen field or next level of study.

Major Requirements

The Theater Arts Major

The major consists of 15 courses: five core courses, five specialty courses (focusing on the student's area of expertise and interest), and five related courses (chosen to complement the student's professional program). The five core courses are required of all majors. Majors may specialize in acting, directing, technical theater, theatrical dramatic criticism and playwriting, as well student-initiated areas of study and focus. Students may also major in theater with an emphasis on literature and dramatic criticism. Related courses are to be chosen in consultation with an adviser and are to be weighted heavily toward sound liberal-arts education.

Required of all majors:

1. Core Courses
   TA112 The Creative Actor
   TA212 Actor as Thinker
   TA153 Modern Drama
   TA144 Drama of the Western Tradition
   TA120 Basic Technical Theater
2. Specialty Courses
   Five theater-arts courses specializing in a single area (e.g., acting, directing, technical theater, dramatic criticism, theatrical design, playwriting). At least two of these courses must be at the 200 level.
3. Related Courses
   A set of five courses outside theater arts but related to the student's area of specialization, (e.g. performance projects, internships, directed readings, or courses in English, literature, music, history, philosophy) and selected in consultation with the student's adviser.

The Capstone Requirement

The capstone experience for both majors and minors will usually be participation in or working on productions, often in the form of a special project, directed reading, directed research, field project, or internship. Such projects might include directing a play, researching a role, building a show, stage managing, or writing a play, and might involve working in/on visual and performing arts productions, student productions, and production off campus. In some cases, the capstone experience might be a critical or research paper or thesis.

Honors Program

Students with distinguished academic records who wish to take honors in theater arts should consult the program director early in their junior year to identify a project of interest and choose an honors adviser. The student is expected to use the honors program to develop an independent work, which displays their skills and capabilities in their chosen field. This can take the form of writing a play, performing a role, etc., with an emphasis on attaining a professional standard of work. The thesis must be performed and/or presented as a senior and will be reviewed by a faculty panel.

Theater Arts Minor

All courses and seminars in the theater-arts program are opened to qualified nonmajors. Students whose major lies in another discipline can declare a minor in theater arts, developing a complementary sequence of courses in any field within the program.

Courses

TA107 Introduction to Video Production/Studio, Lecture, Discussion

Workshop in seeing and thinking in electronic imaging techniques and processes. Open to nonmajors. Mr. Simon/Offered every semester

TA109 Contemporary Women Playwrights

This course is designed to introduce the student to the works of major women playwrights of the past 100 years. While there is some focus on the early part of the 20th century, the primary study will be of plays written in the past 30 years. In studying the plays, a number of different points of view and reference will be considered including that of the playwright, actor, director, historian and dramaturge. The student is encouraged to formulate a personal opinion of these plays and dramatists. Mr. DiIorio/Offered bi-annually

TA111 Voice and Diction/Studio, Tutorial

An intensified phonetic approach to articulation and voice production with some emphasis on speech for the stage and for public occasions. Several laboratory sessions will be provided for individual coaching by the instructor. Staff/Offered every year

TA112 The Creative Actor/Studio

Through a series of workshops, the student becomes familiar with the basic tools necessary to the art of acting. The approach is based on the techniques of Stanislavski, Viola Spolin, Joseph Chaikin, Robert Cohen and original exercises, including an introduction to basic voice and movement for the actor. Limited to 25 students. Mr. Munro, Mr. DiIorio/Offered every semester

TA116.1 Movement for the Performing Artist: The Alexander Technique

The Alexander Technique is a mind/body teaching method that employs experiential learning. The course will focus on moving and thinking freely in the artistic process and everyday life. Students will learn how to recognize and change habits that cause unnecessary worry, tension and fatigue. Performance movement, public speaking and other activities will be used as ways for students to observe themselves in action. By understanding how they respond in activity, students will become adept at making choices, which will encourage their innate ability to work and perform with freedom and ease. Mr. and Ms. Hovenisian/Offered every year

TA119 Public Speaking/Studio

Students are required to make as many speeches as time permits, so that they may master the fundamentals of public speaking, including the most common situations: presentation of information and persuasive speaking. Staff/Offered every year

TA120 Technical Theater/Studio, Lecture

Introduction to theatrical production. Techniques and organization involved in providing the stage with scenery, lights and properties. Introduces drafting, scaled ground plans, elements of design and styles of production. Makeup, lighting and set construction in applied lab/crew requirements. Ms. Weinrobe/Offered every semester

TA123 DESIGN FOR PERFORMANCE/STUDIO, TUTORIAL

Theory of design/function of visual artist in relationship to production, director or choreographer. Collaboration in and development of performance art. Historical research in styles of ornament and production. Drawing, painting and model building. Lab/crew assignments. Ms. Weinrobe/Offered every year

TA125 THEATRICAL DESIGN PROJECTS/STUDIO, TUTORIAL

Intermediate-level projects in design and presentation techniques for theater productions. Work in areas of scenery, costume or lighting design. Prerequisite: TA120. Ms. Weinrobe/ Offered every semester

TA126 THE PHYSICAL THEATER/ENVIRONMENTAL STUDIO/STUDIO, TUTORIAL

Study of designed environment and structure as it relates to performance and the physical theater as well as contemporary installation projects. Study of public spaces, theater architecture and site-specific work. Ms. Weinrobe/ Offered every other year

TA127 ANALYSIS OF THEATER PRODUCTION/ SEMINAR

Examination of live theater productions through written and verbal criticism. Critical elements of the concept of production explored through assigned readings and the development of a production proposal/concept. Attendance required at scheduled evening and/ or weekend performances in the Worcester/ Boston area. A lab fee will be collected to pay for tickets and bus rental. Ms. Weinrobe/ Offered periodically

TA153 MODERN DRAMA/LECTURE, DISCUSSION/ FIRST-YEAR SEMINAR

Surveys the major dramatic writers from the 19th-century to the present. In studying the plays, a number of different points of view and reference will be considered including that of the playwright, actor, director, historian and the dramaturge. The student will be encouraged to arrive at a personal evaluation of the plays. Mr. DiIorio/Offered every year

TA212 ACTOR AS THINKER/STUDIO, LECTURE, DISCUSSION

A conceptual approach to acting theory and its application. Student develops a greater understanding of script analysis, characterization, style and the relationship of the actor to the audience. A basic course for all students who intend to continue in acting and directing, and a prerequisite for TA213 Studio and TA219 Directing Seminar. Prerequisite: TA112. Limited to 15 students. Mr. Munro/Offered every semester

TA213 STUDIO

A scene-study course applying the methods, theories and approaches discussed in Actor as Thinker to working on stage, film and video. Students are required to present several scenes of different periods and styles for discussion, critical written review and further development by classmates and director. Content varies each time the course is taught. May be repeated for credit. Lab and crew hours are required. Prerequisite: TA212. Mr. Munro, Mr. DiIorio/Offered every semester

TA214 SHAKESPEARE IN ACTION/STUDIO

This acting course concentrates on the major works (Hamlet, Macbeth, Twelfth Night, Romeo and Juliet, etc.), giving the actor an introduction to Shakespeare. The actor is encouraged to maintain the same approach and techniques used in other scene work, while adding the challenge of verse and heightened language. The focus of the class is to take a Shakespearean play and create the illusion of the first-time performance. Mr. DiIorio/Offered periodically

TA219 DIRECTING SEMINAR

Introduces the principles of directing for the stage through theory, practical application and discussion. Students study problems of interpretation and concept; the role of the director as creative and interpretive artist; and relationship to designer, stage manager and actors. Additional lab time is required. Prerequisites: TA213 and instructor permission. Mr. Munro/ Offered every year

TA225 ADVANCED THEATRICAL DESIGN PROJECTS
Advanced-level projects in design. May be repeated for credit. Prerequisite: instructor permission. Ms. Weinrobe

TA226 ADVANCED PRODUCTION PROJECTS
Introduces the business and practical execution of theater productions. Students learn techniques in organizing and managing different areas and departments. Requirements include participating in a supervisory position on a department show. Positions in outside theaters accepted for credit. Ms. Weinrobe

TA230 PLAYWRITING
Students learn basic techniques of stagecraft including dialogue and character development, as well as dramatic structure and the technical elements of a play. Students will write every week and complete assignments to be read in class. Mr. DiIorio/Offered every year

TA235 ADVANCED PLAYWRITING WORKSHOP
This workshop is designed to facilitate the work of advanced playwrights and actors. Writers will develop scenes every week to be performed by the actors in the workshop. There will be an open discussion of the strengths and weaknesses of the piece from the perspectives of both performer and writer. The goal is to strengthen this relationship through constant work and critique. Every month, students will give a public performance of some of the scenes written for class. Course may be repeated for credit. Mr. DiIorio/Offered periodically

TA299 SEC.1 DIRECTED READING
Staff

TA299 SEC.2 DIRECTED RESEARCH
Staff

TA299 SEC.3 DIRECTED WRITING
Staff

TA299 SEC.4 FIELD PROJECT
Staff

TA299 SEC.5 SPECIAL PROJECT
Staff

TA299 SEC.6 SPECIAL TOPICS
Staff

TA299 SEC.9 INTERNSHIP
Staff

Interdisciplinary Courses

The following is a list of additional course offerings approved for credit in Theater Arts. For more details about any of these interdisciplinary courses, see the catalog listing under the participating home department.

See Comparative Literature
CMLT205 The Play and Its Stages
CMLT206 Languages of Theater

See English
ENG120 Introduction to Shakespeare
ENG143 Terrible Beauty: The Art of Tragedy
ENG144 Drama of the Western Tradition
ENG253/ENG353 Advanced Studies in Shakespeare
ENG256/ENG356 Shakespeare from Page to Stage

See Foreign Languages
FREN165 French Dramatic Expression: Play Production
FREN170 The Comic Spirit in French Theater

See Screen Studies
SCRN107 Introduction to Video
SCRN171 Storytelling through Video: Documentary and Dramatic Production
SCRN214 Social and Cultural Issue Documentary

Concentrations

ASIAN STUDIES

Program Faculty

Yuko Aoyama, Ph.D.
Gauvin Bailey, Ph.D.
William Fisher, Ph.D.
SunHee Gertz, Ph.D.
Thomas Massey, Ph.D.
Paul Ropp, Ph.D.

Participating Faculty

Betsy Huang, Ph.D.
Minxia Li, M.A.
Srinivasan Sitaraman, Ph.D.
Alice Valentine, M.A.

Program Overview

Asian Studies is an interdisciplinary concentration that can be taken as a complement to any major. The concentration requires six Asian-studies courses. Of these six courses, three may be selected from language courses; the other three must be selected from nonlanguage courses. The concentration further requires that two of the nonlanguage courses must be 200-level courses and one must include a significant research component. Students concentrating in Asian studies are encouraged, though not required, to take at least one year of Chinese or Japanese language and to study one year abroad in Asia.

Through Clark's Study Abroad Office, students may apply to enroll at Kansai Gaidai University near Osaka, Japan, or at the CET program in Beijing, for language and other courses on Japan or China. Students may spend one year or one semester at Kansai Gaidai, which requires at least one year of Japanese language prior to study in Japan. The CET program in Beijing is available for one semester each year in the spring term. Enrollment in the CET program requires at least three semesters of Chinese language study prior to enrollment in China. Clark offers Chinese and Japanese language courses at the beginning and intermediate levels as well as advanced Japanese. Through the Colleges of Worcester Consortium, students may also take advanced Chinese and other Asia-related courses at the College of the Holy Cross.

Students who concentrate in Asian studies are also encouraged to take courses from the following list of related courses:

GEOG127 Political Economy of Third World Underdevelopment
GEOG184 Landscapes of the Middle East
GOVT117 Revolution and Political Violence
GOVT261 Women and Militarization in a Comparative Politics Perspective
ID125 Development Problems
HIST291 Seminar in Advanced Topics in International Relations (depending on the topic).

Although these courses do not carry Asian-studies credit, they deal with Asia and therefore supplement the list of regular Asian studies courses that follows.

Courses

The Asian Studies concentration is an interdisciplinary program. For more details about any of the following approved Asian Studies course offerings, see the catalog listing under the participating home department.

See Art History

ARTH160 The Arts of Asia
ARTH232 Converging Cultures in the Age of Discovery

See Foreign Languages

CHIN101/CHIN102 Elementary Chinese
CHIN103/CHIN104 Intermediate Chinese
JAPN101/JAPN102 Elementary Japanese/Lecture, Discussion
JAPN103/JAPN104 Intermediate Japanese/Lecture, Discussion
JAPN180 Japanese Culture and Literature in Translation/Lecture, Discussion
JAPN190 Japanese Women Writers

See Economics

ECON177 Japanese and Chinese Economies

See English

ENG254/ENG354 Still Spaces–East Meets West: Contemplative Practice in the Classroom
ENG279/ENG379 Fictions of Asian America

See Geography

GEOG107 Miracles of Asia: Economic Growth in Global Contexts

See History

HIST033 Confucianism, Daoism, Buddhism: The Cultural Heritage Of China
HIST080 Introduction to Modern Asia
HIST084 Japanese Civilization
HIST181 Chinese Civilization
HIST182 Modern China
HIST184 Modern Japan
HIST281 The People's Republic of China
HIST282 Chinese Women in Literature and Society
HIST286/HIST386 The Vietnam War
HIST333 Advanced Topics in U.S. Women's History

BIOINFORMATICS

Faculty

Laura Bernhofen, Ph.D.
Rafael Brüschweiler, Ph.D.
Arthur Chou, Ph.D.
Li Han, Ph.D.
David S. Hibbett, Ph.D.
Donald Nelson, Ph.D.
David Thurlow, Ph.D.

Program Overview

Bioinformatics has developed at the juncture of the mathematical sciences and the life sciences; its development is analogous to that of molecular biology as a discipline in its own right. According to the National Institutes of Health (NIH), bioinformatics is "research, development or application of computational tools and approaches for expanding the use of biological, medical, behavioral or health data, including those to acquire, store, organize, archive, analyze or visualize such data." Indeed, there is a consensus among observers that biology, regardless of the subspecialty, is being overwhelmed with a large amount of very complex data; what sets biology apart from other data-rich fields is the complexity rather than the sheer volume of the data produced. It is clear that collaboration between computer scientists, mathematicians, biologists and biochemists will be necessary to design information platforms that support the analysis of biological data. The application of mathematical and computational tools to all areas of biology is producing many exciting results, providing insights into biological problems too complex for traditional analysis.

The concentration in bioinformatics at Clark is offered by the departments of Mathematics and Computer Science in collaboration with the departments of Biology and Chemistry. It introduces students to some of the present paradigms and tools in this rapidly evolving discipline and combines knowledge of biology and chemistry with principles from mathematics and computer science that can be used to design tools to solve problems in the life sciences. It is especially well suited for undergraduates who are interested in the life sciences and enjoy quantitative thinking. Students who graduate with a concentration in bioinformatics will be in a strong position to go into industry or continue their education in graduate school either in their major or in a graduate program in bioinformatics.

The concentration requires three core courses, plus three electives at least one of which must be at the 200 level. None of the electives may be counted towards the student's major. (See Course Requirements for the details.) The electives may be chosen from a wide variety of mathematics, computer science, biology and biochemistry courses in consultation with an adviser. In particular the concentration is designed to be rigorous by flexible.

Course Requirements

1. CSCI101 Computer Programming I
2. CSCI102 Computere Programmin II
3. BINF101
4. Three electives, at least one of these must be at the 200 level:

   Two of the electives should not be directly related to the student's major; more precisely, two of the three must be selected from two of the categories A, B, C, or D, as listed below.

   The third elective can come from any category

   None of the three BINF electives may be counted towards the student's major

Possible Bioinformatics Electives

There are many options in pursuing a Bioinformatics Concentration. Below is a listing of all possible electives a student may take.

Category A

BIOL105 Evolution
BIOL109 Microbiology
BIOL118 Genetics
BIOL137 Cell Biology
BIOL217 Ecology of Infectious Diseases
BIOL218 Genetics and Disease
BIOL221 Developmental Biology
BIOL228 Molecular Genetics
BIOL231 Recombinant DNA
BIOL234 Signal Transduction
BIOL250 Immunology
BIOL254 Molecular Evolution and Systematics
BIOL280 Biostatistics and Computer Applications

Category B

BCMB264 Biophysical Chemistry
BCMB271 Biochemistry 1
BCMB228 Molecular Genetics
CHEM144 Bioanalytical Chemistry
CHEM222 Statistical Thermodynamics
CHEM279 Computer Biochemistry
CHEM266 Biomolecular NMR
CHEM273 Principles of Molecular Modeling

Category C

CSCI140 Computer Organization
CSCI160 Data Structures
CSCI180 Automata Theory
CSCI210 Artificial Intelligence
CSCI212 Scientific Computing
CSCI215 Operating Systems
CSCI220 Database Systems
CSCI230 Compiler Design
CSCI240 Computer Architecture
CSCI250 Software Design
CSCI270 Theory of Computation
CSCI280 Computer Networks
CSCI290 Computer Graphics

Category D

MATH131 Multivariant Calculus
MATH172 Intro to Analysis
MATH212 Numerical Analysis
MATH214 Modern Analysis
MATH216 Complex Variables
MATH217 Probability
MATH218 Statistics
MATH225 Modern Algebra
MATH228 Topology
MATH244 Differential Equations

Two electives must come from two of the following categories:

Major	Category
Biology	B, C or D
Chemistry	A, C or D
Biochemistry and Molecular Biology	C or D
Mathematics	A, B or C
Computer Science	A, B or C

Courses

BINF101 Introduction to Bioinformatics/ Lecture, Laboratory

An introduction to the features of biological data, how those data are organized, and how existing data resources can be utilized efficiently by computer programs to solve a variety of biological problems. Covers database searching, sequence analysis of DNA and protein sequences, phylogenetic analysis, visualization and prediction of protein structures. The computer language Python will be used to facilitate the analysis. Three hour lectures and one 75 minute lab weekly. Prerequisites: BIOL101 (or AP Biology) and CSCI101 (or AP Computer Programming), or instructors' permission. Mr. Chou and Mr. Hibbett/Offered every year

Interdisciplinary Courses

The Bioinformatics concentration is an interdisciplinary program. For more details about any of the following approved Bioinformatics course offerings, see the catalog listing under the participating home department.

See Biochemistry

BCMB144 Bioanalytical Chemistry
BCMB228/BCMB328 Molecular Genetics
BCMB264/BCMB364 Biophysical Chemistry
BCMB271/BCMB371 Biochemistry I

See Biology

BIOL105 Evolution
BIOL109 Microbiology
BIOL118 Genetics
BIOL137 Cell Biology
BIOL217/BIOL317 Ecology of Infectious Disease
BIOL218/BIOL318 Genetics and Disease
BIOL221/BIOL321 Developmental Biology
BIOL231/BIOL331 Recombinant DNA
BIOL234/BIOL334 Signal Transduction
BIOL250/BIOL351 Immunology
BIOL254/BIOL354 Molecular Evolution
BIOL280/BIOL380 Biostatistics and Computer Applications

See Chemistry

CHEM222/CHEM322 Statistical Thermodynamics
CHEM266/CHEM366 Biomolecular NMR
CHEM273/CHEM373 Principles of Molecular Modeling
CHEM279/CHEM379 Computer Biochemistry

See Computer Science

CSCI101 Computer Programming I
CSCI102 Computer Programming II
CSCI140 Assembly Language And Computer Organization
CSCI160 Data Structures And Algorithms
CSCI180 Automata Theory
CSCI210 Artificial Intelligence
CSCI215 Operating Systems
CSCI220 Database Management And Systems Design
CSCI230 Compiler Design
CSCI240 Computer Architecture
CSCI250 Software Engineering
CSCI260 Computer Graphics
CSCI270 Theory of Computation
CSCI280 Computer Networks

See Geography

GEOG280/GEOG380 Urban Ecology: Cities as Ecosystems

See Mathematics

MATH131 Multivariate Calculus
MATH172 Introduction to Modern Analysis
MATH212 Numerical Analysis
MATH214 Modern Analysis
MATH216 Functions of a Complex Variable
MATH217/ECON360 Probability and Statistics
MATH218 Topics in Statistics
MATH225 Modern Algebra I
MATH228 Topology
MATH244 Differential Equations

COMPUTATIONAL SCIENCE

Program Faculty

Jerry Breecher, Ph.D.
Daeg Brenner, Ph.D.
Rafael Brüschweiler, Ph.D.
Arthur Chou, Ph.D.
Harvey Gould, Ph.D.
Frederic Green, Ph.D.
Li Han, Ph.D.
David S. Hibbett, Ph.D.
Shuanghong Huo, Ph.D.
Todd Livdahl, Ph.D.
Donald Nelson, Ph.D.
Natalia Sternberg, Ph.D.

Program Overview

The enormous progress in computational technology has generated a new methodology for learning and advancing the traditional sciences such as physics, chemistry and biology. Computational science combines the application of numerical methods, models and algorithms in the context of solving problems that are intractable by traditional methods. It is distinct from computer science, which is the study of computers and computation and it is different from theory and experiment, the traditional forms of science, in that it seeks to gain understanding principally by the analysis of mathematical models.

The goal of the computational science concentration is to provide an opportunity for students to learn about the interplay between science and computation. The concentration is especially suitable for undergraduate students majoring in the sciences, mathematics or computer science, but students in other majors will be considered on an individualized basis. Students completing the computational science concentration would be able to enter graduate programs in their majors or in newly created interdisciplinary graduate programs in computational science and would be well prepared to go into industry.

Requirements

Because of the sequential nature of many of the requirements and the relatively large number of major requirements for students in the concentration, students are encouraged to plan early and carefully. A student's choice of advanced courses must be approved by the concentration faculty. The requirements vary depending on the student's major and interests, but all students are required to complete the following (or equivalent):

Introductory Courses

- CSCI101 Computer Programming I (or the equivalent)
- Two semesters of calculus (MATH120, 121 or MATH124, 125)
- Two semesters of physics or chemistry (PHYS110, 111 or PHYS120, 121 or CHEM101, 102)
- PHYS127 Computer simulation laboratory

Advanced Courses

Four additional courses are required from the following list of recommended courses with the approval of the program faculty:

CSCI102 Computer Programming II
CSCI160 Data Structures and Algorithms
CSCI210 Artificial Intelligence
BIOL101/BIOL102 Intro. Biology
BIOL254 Molecular Evolution and Systematics
BIOL280 Biostatistics and Computer Applications
CHEM102 Introductory Chemistry II
CHEM242 Nuclear Chemistry
CHEM264 Biophysical Chemistry
CHEM270 Quantum Chemistry
CHEM275 Protein Chemistry
MATH114 Discrete Mathematics
MATH212 Numerical Analysis
MATH217 Probability and Statistics

Research Project

A minimum of a one-semester or summer research project with a member of the program faculty.

Courses

The computational science concentration is an interdisciplinary program. For more details about a specific course, see the catalog listing under the participating home department.

ETHICS AND PUBLIC POLICY

Program Faculty

Gary Overvold, Ph.D., *Program Director*
Margarete Arndt, D.B.A.
John Blydenburgh, Ph.D.
Robert Bradbury, Ph.D.
Halina Brown, Ph.D.
Brian Cook, Ph.D.
Judith DeCew, Ph.D.
Patrick Derr, Ph.D.
Eric Gordy, Ph.D.
Susan Hanson, Ph.D.
Douglas Johnson, Ph.D.
Roger Kasperson, Ph.D.
Deborah Merrill, Ph.D.
Mark Miller, Ph.D.
Attiat Ott, Ph.D.
Edward J. Ottensmeyer, Ph.D.
Michael Pakaluk, Ph.D.
Frank Puffer, Ph.D.
Robert Ross, Ph.D.
Walter Wright, Ph.D.

Program Overview

The interdisciplinary ethics and public policy concentration can be taken in conjunction with any major at Clark. This concentration is particularly recommended for students who intend to pursue professional or career interests in policy-related fields such as law, government, public administration or health care.

Requirements

The requirements for a concentration in ethics and public policy are designed to familiarize the student with the basic concepts and methods of both ethical analysis and policy analysis; to introduce the theoretical and methodological problems of both ethical analysis and policy analysis; and to ensure that the student engages in sustained analysis of particular ethical and public-policy issues at both an introductory and an advanced level.

At a minimum, the concentration in ethics and public policy requires six courses, distributed in the following manner:

1. Two required courses in ethics

   At least one introductory course focused on the basic concepts and methods of ethical analysis. For example:

   PHIL105 Personal Values
   PHIL132 Social and Political Ethics

   At least one advanced course focused on theoretical and methodological problems of ethical analysis. For example:

   GOVT286 Advanced Topics in Contemporary Political Feminist Theories
   PHIL220 History of Ethics
   PHIL221 Social and Political Philosophy
   PHIL228 Contemporary Moral Theory

2. Two required courses in public-policy analysis

   At least one introductory course focused on the basic concepts and methods of policy analysis. For example:

   ECON126 Public Policy Toward Business
   EN175 Science, Decision Making and Uncertainty
   GOVT070 Introduction to Comparative Politics
   GOVT107 Research Methods
   GOVT154 The Politics of Public Policy
   GOVT155 Roots of Political Thought

At least one advanced course focused on theoretical and methodological problems of policy analysis. For example:

ECON215 Government Finance: Budget Policy in a Comparative Setting
EN212 Environmental Policy and Management
EN226 Environmental Hazards
EN250 Technology Assessment
EN261 Decision Analysis for Environmental Management
EN265 Tools for Quantitative Policy Analysis
GOVT202 Applications of Game Theory
GOVT213 Policy Analysis
GOVT253 Judicial Politics
GOVT255 U.S. Congress
GOVT281 Politics of Public Management
SOC243 Political Sociology
SOC246 Social Planning and Social Policy

3. Two required courses on applications and problems.

At least one introductory course focused on particular ethical and public-policy issues. For example:

EDUC155 Education and Social Policy
EN182 People, Politics and Pollution
GEOG105 The Keeping of Animals: Patterns of Use and Abuse
GOVT147 Normative World Orders
GOVT157 The Politics of Environmental Issues
ID108 World Population
ID125 Development Problems
PHIL130 Medical Ethics
PHIL131 Environmental Ethics
PHIL133 Business Ethics
SOC150 Class, Status and Power
SOC180 Aging and Society

At least one advanced course devoted to the intensive analysis of particular ethical and public-policy issues. For example:

ECON216 Tax Systems and Policies
ECON225 Health Policy
ECON126 Public Policy Toward Business
EN210 Environment and Society
EN226 Environmental Hazards: Theory, Models and Applications
EN251 Limits of Earth
EN282 Management of Environmental Pollutants
GEOG254 Urban Transportation: Problems and Prospects
GEOG258 Utopian Vision, Urban Reality
GOVT221 Urban Policy and Internships
GOVT250 National Security Policy Making in the United States
ID232 Population, Environment and Development
MGMT262 Business Ethics
PHIL270 Philosophy of Law
PHIL272 Advanced Issues in Medical Ethics
SOC241 Sociology of Medicine
SOC265 Social Movements: The Quest for Justice

Directed Readings, Individual Research

Students who are motivated to undertake significant independent research should consult the individual faculty member with whom they wish to work regarding opportunities for directed research or directed readings.

Internships

Participating faculty sponsor a variety of undergraduate internship experiences, often with policy-making professionals or agencies, which they have a consulting or research relationship. Students interested in these opportunities should inquire through the internship office.

Courses

The Ethics and Public Policy concentration is an interdisciplinary program. For more details about any of the following approved Ethics and Public Policy course offerings, see the catalog listing under the participating home department.

HOLOCAUST AND GENOCIDE STUDIES

Program Faculty

Shelly Tenenbaum, Ph.D., *Director*
Debórah Dwork, Ph.D.
Everett Fox, Ph.D.
Eric Gordy, Ph.D.
Dorothy Kaufmann, Ph.D.
Thomas Kühne, Ph.D.
Simon Payaslian, Ph.D.
Walter Schatzberg, Ph.D.
Valerie Sperling, Ph.D.
Jaan Valsiner, Ph.D.
Kristin Williams, Ph.D.

Program Overview

The Holocaust and acts of genocide are studied to enhance our understanding of the society from which we came, the society in which we live, and the society to which we currently are giving shape. By studying the Holocaust and genocide, we learn about ethnicity, geography and genocide; about collusion and resistance; about the hot violence of mass murder and the cold violence of the modern, bureaucratic machinery of death; and about suffering and adaptation to suffering. We learn how societies disintegrated, step by step, and how ordinary men, women, and children both participated in and were affected by this disintegration. We learn, in short, a tremendous amount about what we need to know now to help us make the world a better place, wherever we might be.

The undergraduate concentration in Holocaust and Genocide Studies provides students with solid grounding in the history of the Holocaust and other genocides. Students also take a series of courses in a variety of disciplines to ensure a critical, analytical and sophisticated understanding of the various facets of these atrocities. The undergraduate program of study emphasizes history while encompassing sociology, government, literature, film and psychology.

Requirements

The Holocaust and Genocide Studies concentration may be pursued in conjunction with any major. Students are required to take seven courses that include:

- HIST175 The History of the Holocaust: Part 1 or HIST284 The Holocaust and Its Aftermath
- GOVT214 Mass Murder and Genocide Under Communism
- SOC130 Genocide
- Two courses from section A, one of which must be in Jewish Studies
- One course from section B
- A capstone course
- The two courses from section A and the one course from section B must be in at least two different disciplines. At least two of the total seven courses must be at the 200 level. The program faculty members will serve as advisers to students, providing guidance in selecting courses and developing a capstone experience.

Section A

Two out of this list are required, one of which must be in Jewish studies:

GERM188 The Culture of the Weimar Republic in Literature, Film and the Arts
HIST105 Poland and Its People
HIST115 Authority and Democracy: The History of Modern Central Europe
HIST135 History of Armenia
HIST173 History of Racial Thought
HIST253 20th-Century Europe
HIST259 Modern Germany
JS130 Suffering and Evil in Jewish Tradition
JS174 The Jewish Experience
JS262 Jews and Christians in the Ancient World
JS276 Modern Jewish History and Thought

Section B

One of the following courses is required:

FREN225 Literature and Film of German-Occupied France
GOVT240 Human Rights and International Politics

- GOV289 Advanced Topics in International Politics: Nationalism, Ethnic Conflict and International Security
- HIST176 The Holocaust in Historical Perspective
- HIST230 The Armenian Genocide
- HIST236 Gender, War and Holocaust Germany, 1914-1960
- HIST260 Rescue and Resistance
- HIST263 Nazi Terror in Germany and Europe
- HIST266 Refugees
- HIST268 Holocaust Issues and Controversies
- HIST270 Homefronts in World War II
- HIST273 Life Under Occupation
- HIST274 The Fate of the Shtetl During the Holocaust
- JS261 Jewish Children in Nazi Europe
- SOC242 Human Rights and Transitional Justice
- PSYCH276 Advanced Cultural Psychology: Cultural Psychology of Genocide and Its Prevention

Capstone Courses

The capstone requirement may be fulfilled through a directed-research project or seminar. Examples of seminars that fulfill the capstone requirement are:

- GOVT289 Advanced Topics in International Politics: Nationalism, Ethnic Conflict and International Security
- HIST236 Gender, War and Holocaust
- HIST260 Rescue and Resistance
- HIST266 Refugees
- HIST268 Holocaust Issues and Controversies
- HIST270 Homefronts in World War II
- HIST273 Life Under Occupation
- HIST274 The Fate of the Shtetl During the Holocaust
- JS261 Jewish Children in Nazi Europe
- PSYC276 Advanced Cultural Psychology: Cultural Psychology of Genocide and Its Prevention

Courses

The Holocaust and genocide studies concentration is an interdisciplinary program. For more details about a specific course, see the catalog listing under the participating home department.

JEWISH STUDIES

Program Faculty

Everett Fox, Ph.D., *Program Director*
Debórah Dwork, Ph.D.
Shelly Tenenbaum, Ph.D.

Adjunct Faculty

Paul F. Burke, Ph.D.
George M. Lane, M.A.

Visiting Faculty

Tzilla Barone, B.A.

Program Overview

Jewish studies at Clark is designed to introduce the student to the major historical and religious trends in Jewish civilization since its inception in antiquity. The courses reflect the broad range of developments both encountered and fostered by the Jewish people including their contact with other world civilizations, classical literature, social and religious institutions as well as their interaction with the modern world. In these courses, Jews and Judaism are studied both in their own internal context and as paradigms for wider trends in history and religion.

Requirements

All students must take JS174 The Jewish Experience, a survey of Jewish history and thought. In addition to JS174, students must take six courses of which at least two must be in the Classical area and at least two in the Modern area. One of the six courses must be an integrating capstone project (internship, independent study, or advanced seminar with the approval of the program director). Two courses in Hebrew language may also count toward concentration.

Classical

- CLAS262 Jews and Christians in the Ancient World
- CLAS267 The Religious Experience in the Ancient World
- JS117 Introduction to the Hebrew Bible I: Narrative and Law
- JS118 Introduction to the Hebrew Bible II: Prophecy and Poetry
- JS121 Laws and Legends, Maxims and Mystical Tales
- JS123 The Midrashic Tradition
- JS130 Suffering and Evil in Jewish Tradition
- JS150 Jerusalem in History and Imagination

Modern

- GOVT245 Americans, Israelis and Arabs
- HIST175 The History of the Holocaust to 1933
- HIST276 Modern Jewish History and Thought
- JS210 Arab-Israeli Conflict
- JS277 The History of Zionism and Israel
- SOC203 American Jewish Life
- SOC258 Women in Jewish Culture (also Classical)

Courses

JS117 INTRODUCTION TO THE HEBREW BIBLE I: NARRATIVE AND LAW/LECTURE, DISCUSSION

A close reading (in English) of the first half of the Hebrew Bible, Genesis through Kings II. Issues to be considered include the rise of Israel against the background of the Ancient Near East, myth and history in the ancient world, biblical storytelling as an artistic and ideological form, and the world view behind biblical laws and rituals. Also discussed is the process by which the Bible took shape, in relation to ancient Israel's self-understanding. The tools of recent research in comparative religion, anthropology, archaeology and literature are utilized. Emphasizes the contribution of this literature to Western thought. Mr. Fox/Offered every year

JS118 INTRODUCTION TO THE HEBREW BIBLE II: PROPHECY AND POETRY/LECTURE, DISCUSSION

A close reading (in English) of the poetic portions of the Hebrew Bible, from Isaiah through the Writings. The prophetic revolution in Israel is evaluated: its roots, as well as its impact on its own society and later social and cultural criticism in the West. The artistry of biblical poetry is analyzed, along with the thematics of piety, despair, resignation and eroticism that are found in such books as the Psalms and the Song of Songs. Finally, books of a more philosophical bent (Ecclesiastes, Job), which question the earlier assumptions of biblical faith, are read. As in JS117, emphasis is placed in the influence of the Bible on later thinking in the West. Mr. Fox/Offered every year

JS121 LAWS AND LEGENDS, MAXIMS AND MYSTICAL TALES

Introduces (in English) major texts of post-Biblical Judaism. Beginning with the Roman period, the texts cover such diverse areas as folklore, ethics, legal rules and mysticism. The sources involve ancient answers to questions of everyday living, physical and spiritual survival, and celebration; we also trace the reformulation of such questions down to the eve of the modern period. Stresses how the texts work, centering on the role of commentary as a classic form of Jewish discourse and on an active style of group learning. Mr. Fox/Offered every other year

JS123 THE MIDRASHIC TRADITION/LECTURE, DISCUSSION

An English-language study of Midrashic literature, the primary Jewish literary expression after the Bible. Written down mainly during the Roman period, the texts comprise independent legends about supernatural beings; writings about biblical characters (filling in gaps in the biblical stories); traditions about the lives of the ancient rabbis; and wide-ranging statements about worldly wisdom, ethical values and political reality. Sources are ready with an eye toward what they reveal about ancient Jewish society and in the light of recent work in folklore studies. A final unit considers later forms of Midrash, such as Hasidic and contemporary variations. Mr. Fox/Offered every other year

JS130 SUFFERING AND EVIL IN JEWISH TRADITION/LECTURE, DISCUSSION

A central problem in Western religious thought is theodicy: how to explain the existence of suffering and evil in a world ruled by a supposedly benevolent God. Examines a variety of Jewish sources on the problem, which propose a wide variety of answers. Central are the biblical book of Job and its interpretations through the centuries; at the other end of history, responses to the Holocaust are considered. Mr. Fox/Offered every other year

JS150 JERUSALEM IN HISTORY AND IMAGINATION/LECTURE, DISCUSSION

Surveys fortunes and forms of Jerusalem from Bronze Age to present day. Examines the political and religious visions for the city (pagan, Jewish, Christian, Muslim) and the secular and religious aspirations of these groups as they have become inextricably entangled with the history of the city. Mr. Burke and Mr. Fox/ Offered periodically

JS210 ARAB-ISRAELI CONFLICT

JS277 THE HISTORY OF ZIONISM IN ISRAEL/ SEMINAR

Examines the rise and development of the Zionist idea, Zionist parties, and politics and diplomacy in relation to Jewish history and international affairs from 1880 until 1948. The second part of the course analyzes Israel's domestic and foreign policies from 1948 to the present. Special attention is given to social and political trends in Israeli society. Staff/Offered periodically

Interdisciplinary Courses

The Jewish Studies concentration is an interdisciplinary program. For more details about any of the following approved Jewish Studies course offerings, see the catalog listing under the participating home department.

See Ancient Civilization

CLAS262 Jews and Christians in the Ancient World
CLAS267 Religious Experience in the Ancient World

See Government

GOVT245 Americans, Israelis and Arabs

See Foreign Languages

HEBR101 Elementary Hebrew I
HEBR102 Elementary Hebrew II
HEBR103 Intermediate Hebrew
HEBR104 Intermediate-Advanced Hebrew
HEBR105 Advanced Hebrew
HEBR297 Sec. 6/HEBR299 Sec. 6 Special Topics in Hebrew

See Holocaust and Genocide Studies

HGS212 Eastern European Jewish History and Culture Between the Two World Wars

See History

HIST152 Jews in Early Modern Europe and Colonial America
HIST174 The Jewish Experience
HIST175 The History of the Holocaust to 1933
HIST276/HIST376 Modern Jewish History and Thought

See Sociology

SOC203 American-Jewish Life
SOC258 Women in Jewish Culture

LAW AND SOCIETY

Program Faculty

Mark Miller, Ph.D., *Program Director*
Judith DeCew, Ph.D.
Patricia Ewick, Ph.D.

Program Overview

The interdisciplinary law and society concentration explores questions about the impact and effects of law, legal institutions and legal actors on society from a variety of perspectives. It also explores the identification and analysis of legal arguments in a variety of contexts. Some of the courses also help the students develop their oral advocacy skills. The concentration can be taken in conjunction with any major at Clark. Generally, 200-level courses are not appropriate for first-year students.

Requirements

1. Students must take a minimum of six courses to fulfill the concentration.
2. The six courses must come from at least three different departments.
3. At least two of the courses must be at the 200 level.
4. One of the six courses must be a gateway course, which should be taken as early as possible in the student's academic program: GOVT050 Introduction to American Government
5. One of the six courses must be a capstone experience (a seminar, an internship or a directed-research project):
   - PHIL270 Seminar: Philosophy of Law
   - GOVT291 Seminar: Lawyers and American Politics
   - GOVT293 Seminar: Constitutional Democracy
   - Legal Internships in a variety of academic departments
   - Directed research or special projects in a variety of academic departments
6. No more than two of the courses can also be counted for the student's major or minor requirements, or for another concentration.

Directed Readings, Individual Research

Students who are motivated to undertake significant independent research should consult the individual faculty member with whom they wish to work regarding opportunities for directed research or special projects.

Internships

Participating faculty sponsor a variety of undergraduate legal and law-related internship experiences. Students interested in these opportunities should inquire with the internship coordinator in the Office of Career Services.

Courses

The Law and Society concentration is an interdisciplinary program. For more details about any of the following approved Law and Society course offerings, see the catalog listing under the participating home department.

GATEWAY COURSE:

GOVT050 Introduction to American Government

GENERAL COURSES:

LAS038 Trial Advocacy

This course teaches the fundamentals of the trial of a case in a court of law. The students are expected to prepare and deliver oral presentations, simulated openings, closings and witness examinations during the semester. The culmination of the course is a series of trials in which the students are the attorneys and witnesses.

LAS039 Advanced Trial Advocacy

This course involves the participation of two teams of Clark University students in the American Mock Trial Association tournaments. The tournaments require each team to prepare and try four cases against other colleges and universities using students as attorneys and witnesses. LAS038 is a prerequisite to this class.

See Economics

ECON126 Public Policy toward Business
ECON157 The Economics of Natural Resources and the Environment
ECON222 Labor
ECON257 Environmental and Natural Resource Economics

See IDCE

EN276/IDCE30276 Environmental Law
EN282/IDCE382 Management of Environmental Pollutants
ENG196 Oral Advocacy

See English

ENG257/ENG357 Language at Issue

See Government

GOVT146 The United Nations and International Law
GOVT253 U.S. Judicial Politics
GOVT257 Comparative Courts and Law
GOVT272 U.S. Constitutional Law: Civil Liberties
GOVT273 U.S. Constitutional Law: Governmental Powers
GOVT274 The Supreme Court in American Society
GOVT291 Lawyers and Politics
GOVT293 Constitutional Democracy

See History

HIST070 Our European Roots: Western Civilization From Ancient Hebrews Through the Renaissance and Reformation
HIST140 England to 1688
HIST201 Era of the American Revolution
HIST202/HIST302 The Early American Republic
HIST214/HIST314 The American Civil War
HIST217/HIST317 Reconstruction: America after the Civil War, 1865-1877
HIST223/HIST323 The Civil Rights Movement

See Management

MGMT178 Business Law
MGMT262 Legal and Ethical Perspectives on Business
See Philosophy
PHIL107 Logic and Legal Analysis
PHIL108 Privacy, Protection in Law and Ethics
PHIL132 Social and Political Ethics
PHIL221 Social and Political Philosophy
PHIL270 Philosophy of Law

See Sociology

SOC242 Human Rights and Transitional Justice
SOC262 Law and Society
SOC263 Deviance

CAPSTONE COURSES

See Philosophy

PHIL270 Philosophy of Law

See Government

GOVT291 Lawyers and American Politics
GOVT293 Constitutional Democracy

PEACE STUDIES

Program Faculty

Joseph de Rivera, Ph.D., *Program Director*
Patrick Derr, Ph.D.
Debórah Dwork, Ph.D.
William Fisher, Ph.D.
Eric Gordy, Ph.D.
Janette T. Greenwood, Ph.D.
Laura Hammond, Ph.D.
George Lane, Ph.D.
Douglas Little, Ph.D.
Paul Posner, Ph.D.
Dianne Rocheleau, Ph.D.
Robert Ross, Ph.D.
Valerie Sperling, Ph.D.
Kristen Williams, Ph.D.
Walter Wright, Ph.D.

Program Overview

The Peace Studies program is concerned with analyzing alternative ways that may be used to transform individual behavior, national policy and human institutions in order to promote peace and justice in the world. The program promotes discussion and study on issues of conflict and its management, within the lives of individuals, societies and the world at large. It sponsors research on meditation, mediation, negotiation and ways to reduce violence, build diverse communities and use nonviolent action to defend human rights and promote justice.

Undergraduates may concentrate in peace studies to complement any major. Students may also design a major in peace studies via the University's self-designed major. The concentration draws together the knowledge of several disciplines in the context of the search for peace, while enhancing students' critical-thinking skills and awareness of the connections between local and global issues. Departments and programs represented in peace studies include government, history, international development and social change, philosophy, psychology and sociology.

Course work, research and internships enable students to apply their theoretical understanding of the issues of peace to practical situations. The concentrator needs to have an active understanding of the relationship between the three spheres of peace: personal, societal and global. These are interlocked, each influencing the others in cyclical patterns. Conflicts often involve links between the hearts of individuals, the structures of societies, and global competition and cooperation. Hence, the concentrator should be engaged in understanding how personal development and societal and global structure can transform conflicts. Students who complete a concentration in peace studies are prepared to enter careers and graduate study in such fields as public policy, international development, labor relations, environment and ecology, and international relations. They are prepared to take an active role in shaping constructive policies in the public sector and civil society.

The Peace Studies Office provides information on internships, jobs and careers; a library; and a computer link to international conferences and bulletin boards.

Requirements

The Peace Studies concentration requires six courses. Students take PSTD101 An Introduction to Peace Studies and the Psychology of Peace, and at least one course from each of three clusters of courses dealing with issues of negotiation and political influence, nonviolent action, and strength and conflict. Students select a fifth course from any of the three clusters. Finally, the sixth course, which involves at least one of the skills of peacemaking and enables the student to examine personal transformation, is chosen from those listed under the category "Internships, Directed Readings, Research and Capstone Courses." (At least two courses should be at the 200 level; two may be from the student's major.)

Courses

The following is a list of Clark's peace studies offerings. Students may petition the Peace Studies Committee to receive concentration credit for courses other than those listed below, including courses that are available through the Colleges of Worcester Consortium. More information may be obtained from the Peace Studies Office, 201 Jonas Clark, (508) 793-7663.

REQUIRED:

PSTD101 AN INTRODUCTION TO PEACE STUDIES AND THE PSYCHOLOGY OF PEACE

Can we manage the conflict in our personal life, our society and our world so it results in development and justice rather than oppression and destruction? We consider four paths towards peace: strength, negotiation, justice through nonviolent and political action, and personal transformation. Students are asked to develop their own stance towards achieving peace, to act on the basis of that stance and to report what they discover. Mr. De Rivera/ Offered every year

Interdisciplinary Courses

The Peace Studies concentration is an interdisciplinary program. For more details about any of the following approved Peace Studies course offerings, see the catalog listing under the participating home department.

NONVIOLENT ACTION COURSES

GOVT173 Introduction to Latin-American Politics
GOVT177 Transitions to Democracy
GOVT251 Social Movements and Interest Groups
HIST233 The Civil Rights Movement
ID131 Local Action, Global Change
ID253 Social Movements, Globalization and the State
SOC265 Social Movements: Quest for Justice

NEGOTIATION AND POLITICAL INFLUENCE COURSES

ID266 Principles of Negotiation and Mediation: An Overview of Conflict Resolution Approaches
GOVT146 United Nations and International Law
GOVT154 The Politics of Public Policy in the United States
GOVT205 Campaigns and Elections
GOVT211 International Cooperation
GOVT251 Social Movements and Interest Groups
GOVT255 The Politics of Congress
SOC243 Political Sociology

STRENGTH AND CONFLICT COURSES

GOVT070 Introduction to Comparative Politics
GOVT117 Revolution and Political Violence
GOVT210 Violence: The Case of the Middle East
GOVT245 Americans, Israelis and Arabs
GOVT250 U.S. National Security
HIST230 Armenian Genocide
HIST259 Modern Germany
HIST260 Rescue and Resistance during the Holocaust
HIST287 Advanced Topics in International Relations
SOC130 Genocide

INTERNSHIPS, DIRECTED READINGS, RESEARCH AND CAPSTONE COURSES

PSYC246 Psychology of Peacemaking/First Seminar
PSTD290 Special Topics in Peace Studies
PSTD298 Directed Readings in Peace Studies
PSTD299 Peace Studies Internship

RACE AND ETHNIC RELATIONS

Program Faculty

Principal Advisers

Beverly Grier, Ph.D., *Coordinator*
Janette Greenwood, Ph.D.
Shelly Tenenbaum, Ph.D.

Participating Faculty

Maria Acosta Cruz, Ph.D.
Parminder Bhachu, Ph.D.
Martyn Bowden, Ph.D.
Paul Burke, Ph.D.
Carol D'Lugo, Ph.D.
Debórah Dwork, Ph.D.
Cynthia Enloe, Ph.D.
William Ferguson, Ph.D.
Everett Fox, Ph.D.
Susan Hanson, Ph.D.
Fern Johnson, Ph.D.
Dorothy Kaufmann, Ph.D.
Constance Montross, Ph.D.
Winston Napier, Ph.D.
Robert Ross, Ph.D.

Program Overview

Race and Ethnic Relations is an interdisciplinary concentration that enables students to examine relations within and between racial and ethnic groups primarily in the United States. The concentration brings together a wide range of courses in the humanities and social sciences that allow students to compare experiences across racial and ethnic groups. The concentration also allows students to compare the U.S. experience with that of other racially and ethnically diverse countries in Europe, the Middle East, Africa and Asia, past and present.

Requirements

Students fulfilling the race and ethnic relations concentration are required to take a minimum of six courses. Five of the six courses must be U.S.-based courses; one must focus on a country or region outside the United States.

1. One course must be HIST016 Race and Ethnicity in American History, a humanities course. This course serves as the introductory course for the concentration.
2. Two additional courses in the humanities (classics, English, foreign languages and literature, history). One of these courses must be a literature course.
3. Three courses in the social sciences (cultural and global processes, geography, government, sociology).
4. A minimum of three courses must be at the 200 level. One course must be an advanced seminar approved by the student's adviser. The advanced seminar serves as the capstone experience.
5. One course whose focus is a country or region other than the United States.

Courses

The Race and Ethnic Relations concentration is an interdisciplinary program. For more details about any of the following approved Race and Ethnic Relations course offerings, see the catalog listing under the participating home department.

INTRODUCTORY COURSE

HIST016 Race and Ethnicity in American History

HUMANITIES COURSES

Choose at least two:

CMLT125 Crossing Boundaries
ENG182 African-American Literature I
ENG183 African-American Literature II
ENG215 Language and Culture in the United States
ENG291 Harlen Renaissance Seminar
HIST021 Voices from Slavery
HIST113 Urban Landscapes: The City in American Hisotry from Colonial to Modern Times
HIST214 The American Civil War
HIST217 Reconstruction: America After the Civil War, 1865-1877/Seminar
HIST222 History of the South
HIST223 The Civil Rights Movement
SPAN117 Field Work in the Hispanic Community

SOCIAL SCIENCE COURSES

Choose at least three:

SOC125 Cities and Suburbs
SOC200 Class, Status and Power
SOC203 American Jewish Life
SOC252 Race and American Society

COURSES ON RACE AND ETHNICITY OUTSIDE THE UNITED STATES

Choose at least one:

ARTH232 Converging Cultures in the Age of Discovery/Seminar
CLAS262 Jews and Christians in the Ancient World
GOVT178 South Africa: History and Contemporary Politics
GOVT210 Violence: The Case of the Middle East
GOVT228 Comparative Politics of Race, Ethnicity and Gender
GOVT230 Armenian Genocide
HIST173 History of Racial Thought in Modern Europe
HIST284 The Holocaust and its Aftermath
ID120 Introduction to Social Anthropology

SOC260 Roots and Routes: Immigrants, Diasporas and Travel
SPAN239 Hispanic-Caribbean Fiction
SPAN245 Hispanic-American Short Story

INDEPENDENT STUDY COURSES

RER299 Sec. 1 Directed Readings
RER299 Sec. 5 Special Projects
RER299 Sec. 9 Internship

URBAN DEVELOPMENT AND SOCIAL CHANGE

Program Faculty

Core Faculty Advisers

Sharon P. Krefetz, Ph.D., *Program Director*
Susan Hanson, Ph.D.
Amy Richter, Ph.D.
Laurie Ross, Ph.D.
Robert J.S. Ross, Ph.D.

Participating Faculty

John Brown, Ph.D.
Thomas Del Prete, Ph.D.
Timothy Downs, D.Env.
Jacqueline Geoghegan, Ph.D.
Janette T. Greenwood, Ph.D.
Bruce London, Ph.D.
Sarah Michaels, Ph.D.
Heather L. Roberts, Ph.D.
Dianne Rocheleau, Ph.D.

Program Overview

Urbanization has been one of the most powerful processes defining American life in the 20th century. More than three-quarters of the U.S. population is currently classified as urban, suggesting that in many ways understanding contemporary America requires understanding cities—the broad patterns and notable variations in their growth, decline, and in some cases, revitalization. The urban development and social change concentration provides students majoring in any field with a structured program of study that enables them to understand the historical, social, economic and political factors that have shaped U.S. cities and how cities have, in turn, affected the lives of their inhabitants.

The study of urban development and social change is made all the more significant since more than half of the world's population will soon be living in cities, and urbanization will undoubtedly be one of the key forces shaping life in the 21st century.

Students in the urban development and social change concentration study the key concepts and methodological tools used to explore and analyze urban phenomena, focusing primarily on cities in the United States. Students may also choose to take a course that examines urbanization in other parts of the world. Proceeding from an introductory course through intermediate and advanced courses offered in several different departments, students then apply these concepts and methods in their capstone experience. The capstone can be either a research project or an internship, conducted under the supervision of one of the concentration's participating faculty or done as part of an urban-research or internship seminar.

For a capstone project, students in the concentration are encouraged to take advantage of the unparalleled opportunities for field research and applied learning that are offered by Clark's location in the center of Worcester. Like many medium-sized cities in the Northeast and Midwest, Worcester has experienced significant social, economic and political changes over the past few decades, which make it a superb laboratory for learning. Moreover, Clark's involvement in the University Park Partnership (UPP)—a partnership the University forged with neighborhood groups, businesses, and city and state government agencies—provides unique opportunities for students to contribute to innovative efforts to improve education, housing, and economic and social conditions in our inner-city neighborhood.

Requirements

1. Students must take a minimum of seven courses in the concentration, including the capstone project.
2. The seven courses must come from three or more different departments.
3. One of these courses, which should be taken at the outset, must be an introductory course selected from Group A.
4. One of these courses must be a research-methods course, which should be taken as early as possible, selected from Group B.
5. At least three additional courses focusing on U.S. cities must be taken from Group C. At least two of these courses must be at the 200 level.
6. One of the seven courses may be selected from Group D and have a non-U.S, international or comparative focus .
7. One of the seven courses must include a culminating capstone experience, consisting of a research or internship project, done either as part of an urban-research or internship seminar or as a directed project supervised by a core faculty adviser or a participating faculty member in the urban development and social change concentration.
8. No more than two courses in the concentration can also be used to satisfy the requirements of a major, minor or other concentration (excluding courses required for the major).

Students pursuing the concentration will receive advice from one of the core faculty advisers on selecting appropriate courses for the concentration.

Courses

The Urban Development and Social Change concentration is an interdisciplinary program. For more details about any of the following approved Urban Development and Social Change course offerings, see the catalog listing under the participating home department.

GROUP A: INTRODUCTORY COURSES

GOVT171 Urban Politics: People, Power and Conflict in U.S. Cities
HIST113 Urban Landscapes: The City in American History from Colonial to Modern Times
SOC125 Cities and Suburbs

GROUP B: RESEARCH METHODS COURSES

GEOG141 Research Methods in Geography
GOVT107 Research Methods in Politics
GOVT171 Urban Politics: People Power and Conflict in U.S. Cities

GROUP C: U.S. URBAN COURSES

(*) indicates that the course may be used to fulfill the capstone requirement

ECON277 Urban Economics
EDUC112 Transformative Schooling: Documentary Video for Social Change
EDUC152 Complexities of Urban Schooling
GEOG020 Introduction to Urban Geography
GEOG244 Gender, Work and Space
GEOG254 Urban Transportation: Problems and Prospects
GEOG258 Utopian Visions, Urban Realities: Planning Cities for the 21st Century
GEOG262 Urban Economic Geography
GEOG280 Urban Ecology: Cities as Ecosystems
GOVT172 Suburbia: People and Politics
GOVT221 Urban Policy/Seminar and Internship*
GOVT282 Housing Policies and Politics*
HIST203 U.S. Urban History: Colonial-Modern Period*

HIST213 Gender and the City in the United States*
ID296 GIS and Local Planning
IDCE30211 Field Research in Youth Development and High-School Transformation*
IDCE332 Environmental and Social Impacts Assessment*
IDCE346 Practicum in Community Development and Planning*
PSYC211 Laboratory in Community Psychology*
SOC285 Poverty Seminar
SOC299 Sec.9 Internships in Sociology* (depending on specific focus)
SPAN117 Field Work in the Latino Community

GROUP D: COMPARATIVE OR INTERNATIONAL COURSES

ARTH114 Ancient Cities and Sanctuaries
ARTH216 Architecture and Democracy
CMLT288 Art of the City: Paris and New York
SOC290 Cities in Global Perspective*
SOC232 Population, Environment and Development

WOMEN'S STUDIES

Program Faculty

Dianne Rocheleau, Ph.D., *Director*
Maria Acosta Cruz, Ph.D.
Margarete Arndt, D.B.A.
Kiran Asher, Ph.D.
Parminder Bhachu, Ph.D.
Mary-Ellen Boyle, Ph.D.
Marcia Butzel, Ph.D.
Carol D'Lugo, Ph.D.
Judith DeCew, Ph.D.
Jody Emel, Ph.D.
Cynthia Enloe, Ph.D.
Patricia Ewick, Ph.D.
Rachel Falmagne, Ph.D.
Beth Gale, Ph.D.
SunHee Gertz, Ph.D.
Eric Gordy, Ph.D.
Janette T. Greenwood, Ph.D.
Beverly C. Grier, Ph.D.
Laura Hammond, Ph.D.
Susan Hanson, Ph.D.
Fern Johnson, Ph.D.
Dorothy Kaufmann, Ph.D.
Sharon Krefetz, Ph.D.
Deborah Merrill, Ph.D.
Winston Napier, Ph.D.
Amy Richter, Ph.D.
Paul Ropp, Ph.D.
Valerie Sperling, Ph.D.
Shelly Tenenbaum, Ph.D.
Barbara Thomas-Slayter, Ph.D.
Virginia Vaughan, Ph.D.
Kristen Williams, Ph.D.

Emeritus

Serena Hilsinger

Program Overview

The women's studies program at Clark was launched in 1979. It is broadly interdisciplinary and richly interconnected. Women's studies stresses the diversity of women's experiences within countries and around the world. Courses stress the importance of social ideas and relationships such as those shaped by gender, ethnicity, race and class, in order to gain understandings of individual and collective experiences, past and present.

The women's studies concentration may be taken along with any undergraduate major. A total of six courses is required. Interested students may also self-design a women studies major, which must be approved by the Dean of the College, the director of women's studies and a committee of three women's studies faculty members.

Director: Jody Emel, Professor
Office: 1st floor, Carriage House (125 Woodland St.)
Women's Studies Library: 2nd floor, Carriage House.
Administrative staff person: Joanne Ljungberg
Web site: http://www.clarku.edu/departments/womensstudies/
E-mail: womenstudy@clarku.edu

Concentration Requirements

Six courses:

- WS110 Introduction to Women's Studies (taken any year)
- Four additional courses listed as part of the women's studies program (It is recommended that these include both social sciences and humanities.) Two of these courses should be at the 200 level.
- A one-credit internship or special project, or advanced research seminar in women's studies. Internships have included: mentoring local girls in All Kinds Of Girls; working for NOW in Boston or in Washington D.C; interning with a member of Congress or the British Parliament. All internships include readings and a faculty supervisor.

Come to the women's studies office to sign up for your concentration, use the Women's Studies Library or talk to the women's studies director. Concentrators have special events coordinated with the student-run Women's Center, highlighted by International Women's Week every March.

Resources

The Clark University women's studies program is part of the Worcester Consortium in Women's Studies, comprised of seven institutions of higher education, each with their own faculty active in women's studies research and teaching. Worcester also has non-University institutions of value to women's studies students and faculty: the EcoTarium, Worcester Art Museum, Worcester Historical Museum, American Antiquarian Society, Girls Inc., Daybreak (a shelter for battered women) and the Worcester Rape Crisis Center. The Clark women's studies faculty maintain ties with colleges, universities and research centers on women in both the Boston and Amherst areas, such as the Bunting Institute of Radcliffe/Harvard, Wellesley Center for Research on Women, and the Five College (Smith, Amherst, Hampshire, Mount Holyoke, University of Massachusetts) Women's Studies Research Center.

Resources available in the area include the Clark University Goddard Library; Clark Marsh Library on Development and Environment; American Antiquarian Library of U.S. Colonial History; Harvard/Radcliffe Schlesinger Library of the History of America; and New Words, the feminist bookstore, both in nearby Cambridge. Clark's women's studies doctoral program is a member of the international network, the National Council for Research on Women. It is also a member of the National Women's Studies Association.

Courses

The Women's Studies concentration is an interdisciplinary program. For more details about any of the following approved Women's Studies course offerings, see the catalog listing under the participating home department.

In addition to courses offered by the undergraduate college and listed below, women's studies undergraduate concentrators may enroll in selected courses offered by the College of Professional and Continuing Education (COPACE). COPACE provides a diverse list of courses that is revised each year and is enriched by collaborations with various cultural institutions in Worcester. Contact the registrar in COPACE directly for current academic year and summer offerings: www.copace.clarku.edu

See Art History

ARTH148 Georgia O'Keeffe, Alfred Stieglitz and Modernism in America
ARTH248 Gender, Art and Society

See English

ENG133 Survey of Women Writers I
ENG134 Survey of Women Writers II
ENG150 Introduction to Medieval Literature
ENG242/ENG343 Feminist Critical Theory
ENG249/ENG349 Signs and Crossroads
ENG250/ENG350 Medieval Literature
ENG251/ENG351 Chaucer
ENG254/ENG354 Still Spaces–East Meets West: Contemplative Practice in the Classroom
ENG255/ENG355 Studies in the Renaissance
ENG294/ENG394 History of the English Language
ENG295/ENG395 Gender and Discourse

See Foreign Languages

FREN112 Fairy Tales of the World
FREN211 Coming of Age in the French Novel
SPAN236 Women in Hispanic Literature

See Geography

GEOG136 Gender and Environment
GEOG237/GEOG337 Feminism, Nature and Culture
GEOG244/GEOG344 Gender, Work and Space
GEOG335 Feminist Geography

See Government

GOVT102 Women and War
GOVT147 World Order and Globalization
GOVT175 Women and U.S. Politics

See History

HIST213/HIST313 Gender and the City in the United States
HIST219/HIST319 History of American Women
HIST249 Women and Work in Pre-industrial Europe
HIST282 Chinese Women in Literature and Society

See IDCE

ID120 Introduction to Cultural Anthropology
ID277/IDCE377 Gender, Environment and Development
ID285/IDCE375 Gender and Global Change

See Management

MGMT222 Women in the Health-Care System

See Psychology

PSYC249 Women in Society

See Screen Studies

SCRN288 Gender and Film

See Sociology

SOC110 Introduction to Women's Studies
SOC175 The Family
SOC225 Religion and Society
SOC258 Women in Jewish Culture
SOC271 Race, Migration, Gender and Ethnicity
SOC294 Global Ethnographies: Ethnographers in the Making for the 21st Century
SOC296 Internship Seminar

See Theater Arts

TA109 Contemporary Women Playwrights

Women's Studies Courses

WS299 Undergraduate Directed Readings in Women's Studies (Tutorial)
WS299.1 Undergraduate Directed Research in Women's Studies (Tutorial)
WS299.2 Undergraduate Special Project in Women's Studies (Tutorial)
WS299.9 Undergraduate Internship in Women's Studies (Tutorial)

Directory

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FULL-TIME INSTRUCTIONAL FACULTY

Maria I. Acosta Cruz, Ph.D., *Associate Professor of Spanish. B.A., University of Puerto Rico, Mayaguez, 1978; M.A., State University of New York, Binghamton, 1980; Ph.D., 1984. (1986-)*

Michael E. Addis, Ph.D., *Associate Professor of Psychology. B.A., University of California, Berkeley, 1987; Ph.D., University of Washington, Seattle, 1993. (1995-)*

Charles C. Agosta, Ph.D., *Associate Professor of Physics. B.A., Wesleyan University, 1980; Ph.D., Duke University, 1986. (1991-)*

David P. Angel, Ph.D., *Professor of Geography; Leo L. and Joan Kraft Laskoff Professorship in Economics, Technology and Environment; Provost and Vice President for Academic Affairs. B.A., Cambridge University (England), 1980; M.A., University of California, Los Angeles, 1984; Ph.D., 1988. (1987-)*

Yuko Aoyama, Ph.D., *Assistant Professor of Geography. B.A., International Christian University, Tokyo, 1986; M.A., University of California, Los Angeles, 1990; Ph.D., University of California, Berkeley, 1996. (2000-)*

Margarete Arndt, D.B.A., *Professor of Management. M.B.A., Simmons College, 1982; D.B.A., Boston University, 1991. (1990-)*

Kiran Asher, Ph.D., *Assistant Professor of International Development, Community Planning, and Environment. B.S., St. Xavier's College, Bombay, 1987; M.E.M., Duke University, 1990; Ph.D., University of Florida, 1998. (2002-)*

Belén Atienza, Ph.D., *Assistant Professor of Spanish. B.A., Universitat Autónoma de Barcelona, 1993; M.A., Princeton University, 1995; Ph.D., 2000. (2003-)*

Sang Hoo Bae, Ph.D., *Assistant Professor of Economics. B.S., Pusan National University, 1998; Ph.D., Michigan State University, 2003. (2003-)*

Gauvin A. Bailey, Ph.D., *Associate Professor of Art History. B.A., Trinity College, University of Toronto, 1989; M.A., University of Toronto, 1990; Ph.D., Harvard University, 1996. (1997-)*

Michael Bamberg, Ph.D., *Professor of Psychology. M.Phil., University of York, England, 1978; Ph.D., University of California, Berkeley, 1985. (1986-)*

David Bell, Ph.D., *Assistant Professor of International Development. B.A. in Education, University of Port Elizabeth, South Africa, 1980; B.A. in Psychology, 1981; M.Ed., Rhodes University, South Africa, 1994; Ed.D., University of Massachusetts, Amherst, 2001. (2002-)*

Daniel M. Bernhofen, Ph.D., *Associate Professor of Economics. M.S. in Mathematics, Syracuse University, 1987; M.A. in Economics, 1991; Ph.D., 1994. (1994-)*

Parminder K. Bhachu, Ph.D., *Professor of Sociology. B.Sc., University College, London, 1976; Ph.D., London University, 1981. (1991-)*

Roger Bibace, Ph.D., *Professor of Psychology. A.B. University of British Columbia, 1949; Ph.D., Clark University, 1957. (1957-1994)*

Barbara Bigelow, Ph.D., *Professor of Management. B.A., Cornell University, 1973; M.A., Simmons College, 1980; Ph.D., Sloan School of Management, Massachusetts Institute of Technology, 1987. (1989-)*

S. Leslie Blatt, Ph.D., *Professor of Physics and Education. A.B., Princeton University, 1957; M.S., Stanford University, 1959; Ph.D., 1965. (1987-)*

Robert Boatright, Ph.D., *Assistant Professor of Government. B.A., Carleton College, 1992; M.A., University of Chicago, 1994; Ph.D., 1999. (2004-)*

Mary-Ellen Boyle, Ph.D., *Assistant Professor of Management. B.A., Yale University, 1979; M.B.A., Boston College, 1992; Ph.D., 1997. (1999-)*

Daeg S. Brenner, Ph.D., *Professor of Chemistry; Adjunct Professor of Physics. B.S., Rensselaer Polytechnic Institute, 1960; Ph.D., Massachusetts Institute of Technology, 1964. (1967-)*

Halina S. Brown, Ph.D., *Professor of International Development, Community Planning and Environment. B.Sc., Washington University, 1971; Ph.D., New York University, 1975. (1985-)*

John C. Brown, Ph.D., *Associate Professor of Economics. B.A., University of Wisconsin, 1978; M.A., University of Michigan, 1984; Ph.D., 1986. (1986-)*

Rafael Brüschweiler, Ph.D., *Associate Professor and Gustaf H. Carlson Chair of Chemistry. M.S. in Physics, ETH Zürich, 1986; Ph.D. in Chemistry, 1991. (1998-2004)*

Nancy Budwig, Ph.D., *Professor of Psychology; Dean of Graduate Studies and Research. B.A., Vassar College, 1979; Ph.D., University of California, Berkeley, 1986. (1986-)*

Sarah D. Buie, M.F.A., *Professor of Graphic Design; Director, Higgins School for the Humanities. B.S., Wellesley College, 1971; M.F.A., Yale University, 1978. (1981-)*

Paul F. Burke Jr., Ph.D., *Professor of Classics; Adjunct Professor of History. A.B., Stanford University, 1965; Ph.D., 1971. (1976-)*

Marcia Butzel, Ph.D., *Associate Professor of Screen Studies; Adjunct Associate Professor of French and Comparative Literature. B.A., Bryn Mawr College, 1975; M.A., University of Iowa, 1977; Ph.D., 1984. (1984-)*

Myles J. Callan, Ph.D., *Assistant Professor of Economics. B.A., Trinity College, University of Dublin, 1990; M.A., University College, Dublin, 1991; M.Litt., Trinity College, University of Dublin, 1993; M.A., Pennsylvania State University, 1998; Ph.D., 2000. (2002-)*

Esteban V. Cardemil, Ph.D., *Assistant Professor of Psychology. B.A., Swarthmore College, 1993; M.A., University of Pennslyvania, 1994; Ph.D., 2000. (2002-)*

Gary N. Chaison, Ph.D., *Professor of Management. B.B.A., Baruch College, 1966; M.B.A., 1967; Ph.D., State University of New York, Buffalo, 1972. (1981-)*

Arthur Chou, Ph.D., *Associate Professor of Mathematics. B.Sc., Tunghai University, Taiwan, 1976; Ph.D., State University of New York, Stony Brook, 1982. (1982-)*

Brian J. Cook, Ph.D., *Professor of Government. B.A., Cleveland State University, 1977; M.A., University of Maryland, 1982; Ph.D., 1984. (1984-)*

James V. Córdova, Ph.D., *Associate Professor of Psychology. B.A., University of New Mexico, 1989; M.S., University of Washington, 1992; Ph.D., 1996. (2002-)*

Keith S. Coulter, Ph.D., *Assistant Professor of Management. B.A., University of Miami, Florida, 1974; M.S., University of Colorado, 1978; M.B.A., Arizona State University, 1984; Ph.D., University of Connecticut, 1995. (1999-)*

Elli B. Crocker, M.F.A., *Associate Professor of Studio Art. B.A., Smith College, 1977; M.F.A. Tufts University, 1981. (1994-)*

John S. Davies, Ph.D., *Associate Professor of Physics. B.S., University of Maryland, 1953; M.S., 1954; Ph.D., 1960. (1963-)*

Judith W. DeCew, Ph.D., *Professor of Philosophy; Chair, Department of Philosophy. B.A., University of Rochester; M.A., University of Massachusetts-Amherst; Ph.D., 1978. (1987-)*

Joseph deRivera, Ph.D., *Professor of Psychology. B.A., Yale University, 1953; Ph.D., Stanford University, 1961. (1970-)*

Patrick G. Derr, Ph.D., *Professor of Philosophy. B.A., Seattle University, 1972; Ph.D., University of Notre Dame, 1976. (1976-)*

Dileep G. Dhavale, Ph.D., *Professor of Management. B.S., Indian Institute of Technology, Bombay, 1969; M.S., State University of New York, Buffalo, 1972; Ph.D., Pennsylvania State University, 1975. (1987-)*

Gino DiIorio, M.F.A., *Assistant Professor of Theater Arts. B.A., Clark University; M.F.A., Brooklyn College. (2001-)*

Carol C. D'Lugo, Ph.D., *Professor of Spanish. B.A., Douglass College, 1965; M.A., University of Illinois, 1967; Ph.D., Brown University, 1983. (1984-)*

Marvin A. D'Lugo, Ph.D., *Professor of Spanish; Adjunct Professor of Screen Studies. B.A., Brooklyn College, 1965; M.A., University of Illinois, 1967; Ph.D., 1969. (1972-)*

Timothy Downs, Ph.D., *Assistant Professor of Environmental Science and Policy. B.S., University of Loughborough, UK, 1984; M.S., University of Hawaii, 1990; Ph.D., University of California, Los Angeles, 1997. (2001-)*

Debórah Dwork, Ph.D., *Rose Professor in Holocaust Studies and Modern Jewish History and Culture. B.A., Princeton University, 1975; M.P.H., Yale University, 1978; Ph.D., University College, London, 1984. (1996-)*

J. Ronald Eastman, Ph.D., *Professor of Geography. B.A., Bishop's University, 1971; M.A., Queen's University, Ontario, 1977; Ph.D., Boston University, 1982. (1981-)*

James P. Elliott, Ph.D., *Professor of English; Adjunct Associate Professor of Screen Studies. B.A., Stanford University, 1966; Ph.D., Indiana University, 1971. (1971-)*

Priscilla Elsass, Ph.D., *Associate Professor of Management; Acting Dean, Graduate School of Management. B.S., Cornell University, 1975; M.P.S., 1976; M.B.A., University of Connecticut, Storrs, 1989; Ph.D., 1992. (1991-)*

Jacque L. Emel, Ph.D., *Professor of Geography; Director. B.A., University of Kansas, 1972; M.S., Pennsylvania State University, 1977; Ph.D., University of Arizona, 1983. (1984-)*

Karen L. Erickson, Ph.D., *Professor of Chemistry. B.S., Siena Heights College, 1960; Ph.D., Purdue University, 1964. (1965-)*

Patricia M. Ewick, Ph.D., *Professor of Sociology; Chair, Department of Sociology. B.A., Tufts University, 1976; M.A., Yale University, 1977; M.Phil., 1978; Ph.D., 1985. (1990-)*

Rachel Joffe Falmagne, Ph.D., *Professor of Psychology. License in Psychological Sciences, University of Brussels, 1961; Docteur en Sciences Psychologiques, 1967. (1973-)*

William R. Ferguson, Ph.D., *Associate Professor of Spanish; Adjunct Associate Professor of English;. A.B., Harvard College, 1965; A.M., Harvard University, 1970; Ph.D., 1975. (1979-)*

Odile Ferly, Ph.D., *Assistant Professor of French. B.A., University of Bristol, UK, 1995; M.A., Université de la Sorbonne Nouvelle, Paris, 1996; Ph.D., University of Bristol, 2002. (2004-)*

Jude Fernando, Ph.D., *Assistant Professor of International Development. B.A., University of Peradeniya, Sri-Lanka, 1986; Ph.D., University of Pennsylvania, Pittsburgh, 1998. (2004-)*

William F. Fisher, Ph.D., *Professor of International Development, Community, and Environment; Director, International Development, Community, and Environment Program. B.A., Bucknell University, 1973; M.I.A., Columbia University, 1979; M.Phil, 1982; M.A., 1982, Ph.D., 1987. (2000-)*

Susan A. Foster, Ph.D., *Associate Professor of Biology. B.A., University of Wisconsin, 1974; Ph.D., University of Washington, 1984. (1995-)*

Everett Fox, Ph.D., *Allen M. Glick Chair in Judaic and Biblical Studies; Professor of Jewish Studies; Director, Jewish Studies Program. B.A., Brandeis University, 1968; M.A., 1972; Ph.D., 1975. (1987-)*

Beth W. Gale, Ph.D., *Assistant Professor of French. B.A., University of Delaware, Newark, 1993; M.A., University of Pennsylvania, Philadelphia, 1996; Ph.D., 1999. (2001-)*

Jacqueline Geoghegan, Ph.D., *Associate Professor of Economics, Adjunct Associate Professor of Geography. B.A., Queens College, City University of New York, 1987; M.S., University of California, Berkeley, 1989; Ph.D., 1995. (1996-)*

SunHee Kim Gertz, Ph.D., *Professor of English; Chair, Department of English; Director, Leir Center in Luxembourg. B.A., Carnegie-Mellon University, 1973; M.A., State University of New York, Binghamton, 1977; Ph.D., University of Chicago, 1983. (1985-)*

Eric Gordy, Ph.D., *Associate Professor of Sociology. B.A., Swarthmore College, 1988; M.A., University of California, Berkeley, 1992; Ph.D., 1997. (1997-)*

Harvey A. Gould, Ph.D., *Professor of Physics. B.A., University of California, Berkeley, 1960; Ph.D., 1966. (1971-)*

Laura M. Graves, Ph.D., *Associate Professor of Management. B.A., College of William and Mary, 1977; M.A., University of Connecticut, 1980; Ph.D., 1982. (1989-)*

Wayne B. Gray, Ph.D., *Professor of Economics. A.B., Dartmouth College, 1977; M.A., Harvard University, 1979; Ph.D., 1983. (1984-)*

Frederic Green, Ph.D., *Professor of Mathematics and Computer Science. B.S., Rensselaer Polytechnic Institute, 1973; M.S., Worcester Polytechnic Institute, 1979; Ph.D., Yale University, 1986. (1986-)*

Frederick T. Greenaway, Ph.D., *Professor of Chemistry. Adjunct Professor of Biology. B.Sc., University of Canterbury, New Zealand, 1969; Ph.D., 1973. (1980-)*

Janette T. Greenwood, Ph.D., *Associate Professor of History; Chair, Department of History. A.B., Kenyon College, 1977; M.A., University of Wisconsin, Madison, 1978; Ph.D., University of Virginia, 1991. (1991-)*

Beverly C. Grier, Ph.D., *Associate Professor of Government. M.A., Yale University, 1975; Ph.D., 1979. (1986-)*

Sharon A. Griffin, Ph.D., *Associate Professor of Education; Adjunct Associate Professor of Psychology. B.A., McGill University, 1965; M.Ed., University of New Hampshire, 1970; Ph.D., University of Toronto, 1988. (1989-)*

Wendy S. Grolnick, Ph.D., *Associate Professor of Psychology. B.A., Cornell University, 1981; M.A., University of Rochester, 1984; Ph.D., 1987. (1991-)*

Laura Hammond, Ph.D., *Assistant Professor of International Development. B.A., Sarah Lawrence College, 1989; M.A., University of Wisconsin, Madison, 1992; Ph.D., 2000. (2004-)*

Li Han, Ph.D., *Assistant Professor of Mathematics and Computer Science. B.S., Xi'an Jiaotong University, China, 1989; M.S., 1992; Ph.D., Texas A&M University, 2000. (2002-)*

Susan E. Hanson, Ph.D., *The Jan and Larry Landry University Professor of Geography. A.B., Middlebury College, 1964; M.S., Northwestern University, 1969; Ph.D., 1973. (1981-)*

Scott Hendricks, Ph.D., *Assistant Professor and George F. Kneller Chair in Philosophy. B.A., Brigham Young University, 1993; M.A., University of Arizona, 1997; Ph.D., 2001. (2001-)*

Stanley R. Herwitz, Ph.D., *Professor of Geography; Adjunct Professor of Biology. B.A., New College of the University of South Florida, 1977; M.A., University of California, Berkeley, 1979; Ph.D., Australian National University, Canberra, 1983. (1984-)*

David S. Hibbett, Ph.D., *Associate Professor of Biology. B.S., University of Massachusetts, Amherst, 1985; Ph.D., Duke University, 1991. (1999-)*

Betsy P. Huang, Ph.D., *Assistant Professor of English. B.A., State University of New York, Buffalo, 1989; M.A., Kent State University, 1996; Ph.D., University of Rochester, 2003. (2003-)*

Kenneth Hughes, Ph.D., *Professor of German and Russian; Adjunct Professor of Theater Arts; Director, Comparative Literature Program. A.B., Rutgers College, 1962; Ph.D., Rutgers University, 1967. (1973-)*

Shuanghong Huo, Ph.D., *Assistant Professor of Chemistry. B.S., Peking University, China, 1990; Ph.D., Boston University, 1999. (2001-)*

Amy Ickowitz, Ph.D., *Assistant Professor of Economics. B.A., School for International Training, Vermont, 1991; Ph.D., University of California, Riverside, 2004. (2004-)*

Douglas L. Johnson, Ph.D., *Professor of Geography. B.A., Clark University, 1965; M.A., University of Chicago, 1968; Ph.D., 1971. (1972-)*

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THE CORPORATION

As of July 1, 2004

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ACADEMIC CALENDAR 2004-2005

FALL 2004

Aug. 18-19	Early student orientation; International student orientation - Undergrad only
Aug. 20-24	Orientation for all new undergraduate students
Aug. 23	Orientation for all new graduate students
Aug. 24	Residence halls open at 9 a.m. for returning students
Aug. 24	Financial clearance for continuing undergraduate students
Aug. 24	Registration day for all new students
Aug. 25	First day of classes; Monday schedule
Sept. 1	Fall Convocation
Sept. 6	Labor Day - no classes
Oct. 11-12	Mid-term break - no classes
Oct 29-31	Family Weekend
Nov. 5	Last day to withdraw with a grade of W (undergraduates)
Nov. 24-28	Thanksgiving Recess
Dec. 8	Last day of classes
Dec. 9-12	Reading Days
Dec. 13-16	Final Exams
Dec. 17	Exam make-up day

SPRING 2005

Jan. 17	Residence Halls open at 9:00 a.m.
Jan. 17	Financial clearance for all continuing undergraduate students
Jan. 18	First day of classes
March 7-11	Mid-term break
April 1	Last day to withdraw with a grade of W
May 2	Last day of classes
May 3-4, 7-8	Reading Days
May 5-6, 9-10	Final Exams
May 22	Commencement

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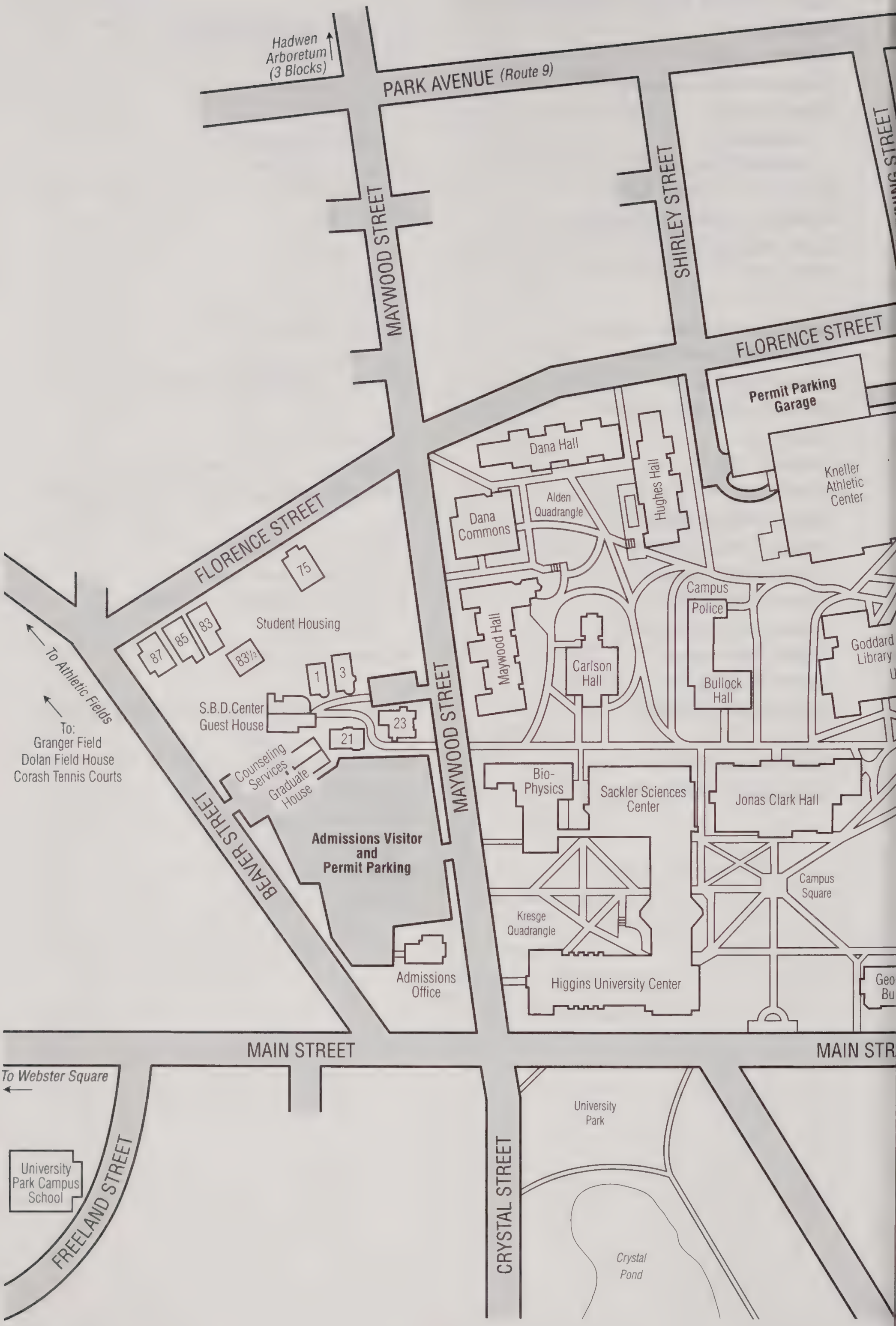
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Hughes Hall
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Alden Quadrangle
FLORENCE STREET
75
Student Housing
87
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83
83½
1
3
S.B.D.Center Guest House
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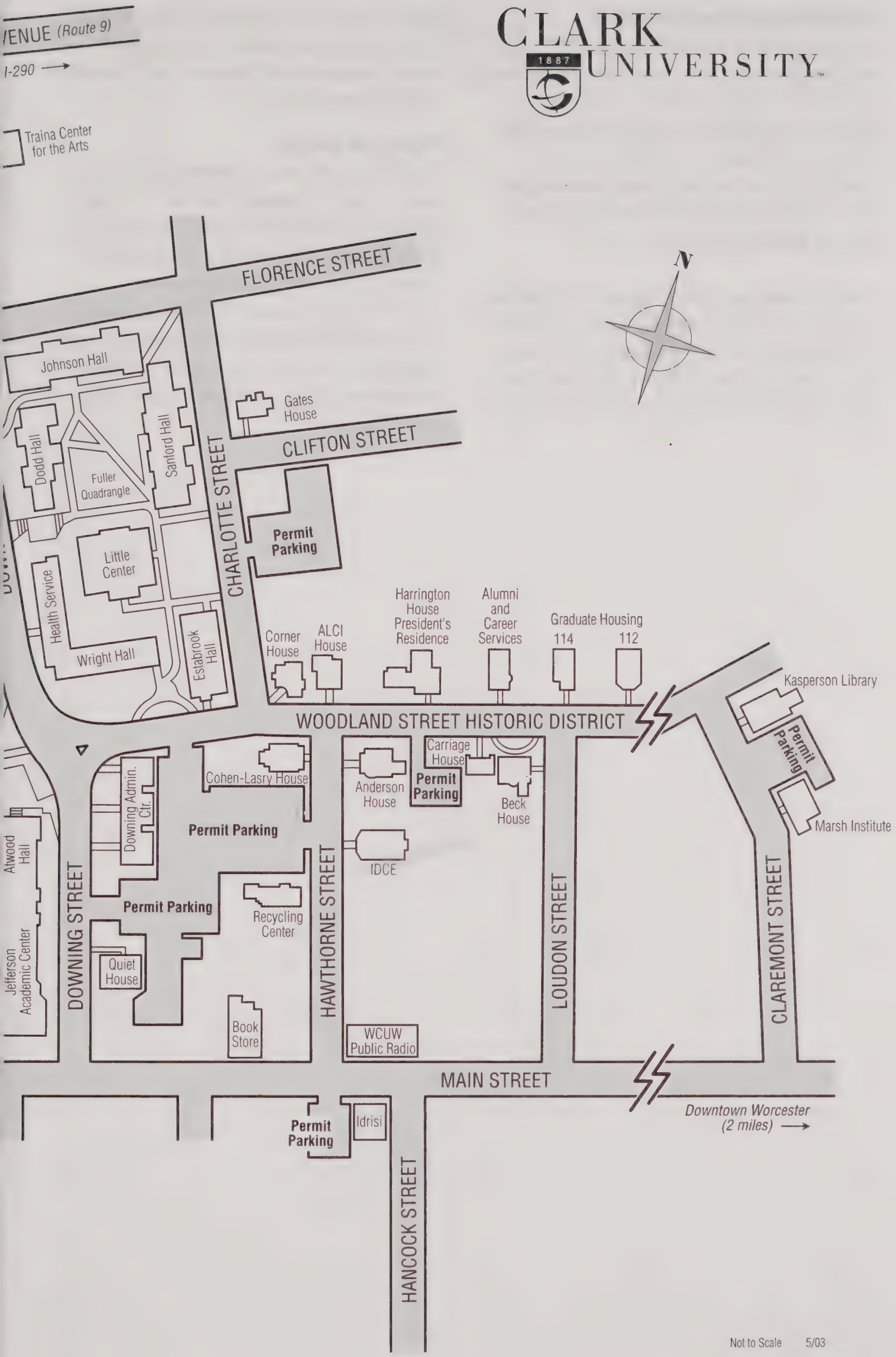

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